SCHEME OF EXAMINATIONS

FOR

TWO YEAR MBA PROGRAMME FROM THE SESSION 2019-20

FIRST YEAR: FIRST SEMESTER

Course Code	Title of the Course (s)	External Marks	Sessional Marks	Practical Marks	Total Marks	Credits (L-T-P)
CORE COURSES						
19IMG21C1	**Management Concepts and Organizational Behavior**	80	20	-	100	3-1-0
19IMG21C2	**Managerial Economics**	80	20	-	100	3-1-0
19IMG21C3	**Accounting for Managers**	80	20	-	100	3-1-0
19IMG21C4	**Business Statistics and Analytics**	80	20	-	100	3-1-0
19IMG21C5	**Operations Management**	80	20	-	100	3-1-0
19IMG21C6	**Computer Fundamentals and Office Automation Tools**	50	-	50	100	3-0-1
19IMG21C7	**Business Environment**	80	20	-	100	3-1-0
Discipline Specific Elective Courses (Each student will opt one course)						
19IMG21D1	**Business Communication Skills**	80	20	-	100	3-1-0
19IMG21D2	**Event Management**	80	20	-	100	3-1-0
Total Credits in 1st Semester						**32**

FIRST YEAR: SECOND SEMESTER

Course Code	Title of the Course (s)	External Marks	Sessional Marks	Practical Marks	Total Marks	Credits (L-T-P)
CORE COURSES						
19IMG22C1	**Financial Management**	80	20	-	100	3-1-0
19IMG22C2	**Marketing Management**	80	20	-	100	3-1-0
19IMG22C3	**Human Resource Management**	80	20	-	100	3-1-0
19IMG22C4	**Business Research Methods**	80	20	-	100	3-1-0
19IMG22C5	**IT Infrastructure Management**	50	-	50	100	3-0-1
19IMG22C6	**Comprehensive Viva-voce**	**100**	**-**	**-**	**100**	**4**

Foundation Elective Course						
Each student will opt one course from the pool of Foundation Elective Courses provided by the University, excluding the Foundation Elective Course prepared by the Institute of Management Studies and Research.						2
Open Elective Course						
Each student will opt one course from the pool of Open Elective Courses provided by the University, excluding the Open Elective Courses prepared by the Institute of Management Studies and Research.						3
Discipline Specific Elective Courses (Each student will opt one course)						
19IMG22D1	**Entrepreneurship**	80	20	-	100	3-1-0
19IMG22D2	**Creativity and Innovation Management**	80	20	-	100	3-1-0
Total Credits in 2nd Semester						**33**

NOTE: Immediately after the completion of the Second semester, the students shall proceed for their Summer Vacation Training (SVT) of eight weeks duration. The Summer Training Report prepared after the completion of SVT shall be assessed in the third Semester as a compulsory course. The SVT will be submitted by the candidates in the manner as specified in the Ordinance.

SECOND YEAR: THIRD SEMESTER

Course Code	Title of the Course (s)	External Marks	Sessional Marks	Practical Marks	Total Marks	Credits (L-T-P)
CORE COURSES						
20IMG23C1	**Strategic Management**	80	20	-	100	3-1-0
20IMG23C2	**Corporate Laws**	80	20	-	100	3-1-0
20IMG23C3	**Operations Research**	80	20	-	100	3-1-0
20IMG23C4	**Summer Training Report**	100	-	-	100	4
Open Elective Course						
Each student will opt one course from the pool of Open Elective Courses provided by the University, excluding the Open Elective Courses prepared by the Institute of Management Studies and Research.						3
Discipline Specific Elective Courses (specialization areas offered under dual specialization scheme) Students will opt two papers in each of the two SAME specialization areas in III as well as IV semester.						
HUMAN RESOURCE MANAGEMENT						
20IMG23GH1	**Compensation and Benefits Management**	80	20	-	100	3-1-0
20IMG23GH2	**Organizational Change and Intervention Strategies**	80	20	-	100	3-1-0
20IMG23GH3	**Human Resource Metrics and Analytics**	80	20	-	100	3-1-0
20IMG23GH4	**Management of Industrial Relations**	80	20	-	100	3-1-0
20IMG23GH5	**Strategic Human Resource Management**	80	20	-	100	3-1-0
FINANCE MANAGEMENT						
20IMG23GF1	**Indian Financial System and Financial Markets**	80	20	-	100	3-1-0
20IMG23GF2	**Project Management**	80	20	-	100	3-1-0
20IMG23GF3	**Business Taxation**	80	20	-	100	3-1-0
20IMG23GF4	**Investment Management**	80	20	-	100	3-1-0
20IMG23GF5	**Bank Management**	80	20	-	100	3-1-0
INFORMATION TECHNOLOGY MANAGEMENT						
20IMG23GT1	**E-Commerce and Applications**	50	-	50	100	3-0-1
20IMG23GT2	**Data Ware Housing and Data Mining**	80	20	-	100	3-1-0
20IMG23GT3	**E-Governance and Framework of ICT**	80	20	-	100	3-1-0

20IMG23GT4	**Multimedia and Web Development**	50	-	50	100	3-0-1
20IMG23GT5	**Enterprise Resource Planning**	80	20	-	100	3-1-0
INTERNATIONAL BUSINESS MANAGEMENT						
20IMG23GI1	**Foreign Exchange Management**	80	20	-	100	3-1-0
20IMG23GI2	**International Business Environment**	80	20	-	100	3-1-0
20IMG23GI3	**Export Import Management and Documentation**	80	20	-	100	3-1-0
20IMG23GI4	**Regional Economic Blocks**	80	20	-	100	3-1-0
20IMG23GI5	**International Logistics**	80	20	-	100	3-1-0
MARKETING MANAGEMENT						
20IMG23GM1	**Digital Marketing**	50	-	50	100	3-0-1
20IMG23GM2	**Customer Relationship Management**	80	20	-	100	3-1-0
20IMG23GM3	**Services Marketing**	80	20	-	100	3-1-0
20IMG23GM4	**Consumer Behavior**	80	20	-	100	3-1-0
20IMG23GM5	**Retail Management**	80	20	-	100	3-1-0
OPERATIONS MANAGEMENT						
20IMG23GO1	**Project Management**	80	20	-	100	3-1-0
20IMG23GO2	**Total Quality Management**	80	20	-	100	3-1-0
20IMG23GO3	**Supply Chain and Logistics Management**	80	20	-	100	3-1-0
20IMG23GO4	**Service Operations Management**	80	20	-	100	3-1-0
20IMG23GO5	**Research and Development Management**	80	20	-	100	3-1-0
PUBLIC POLICY MANAGEMENT						
20IMG23GP1	**Legal Institutional Dynamics**	80	20	-	100	3-1-0
20IMG23GP2	**Development Economics**	80	20	-	100	3-1-0
20IMG23GP3	**Right To Information Act**	80	20	-	100	3-0-1
20IMG23GP4	**Public Finance Administration**	80	20	-	100	3-1-0

20IMG23GP5	**Risk and Disaster Management**	80	20	-	100	3-1-0
BUSINESS ANALYTICS						
20IMG23GB1	**Business Analytics**	80	20	-	100	3-1-0
20IMG23GB2	**Fundamentals of Data Mining**	80	20	-	100	3-1-0
20IMG23GB3	**Fundamental of Econometrics**	80	20	-	100	3-1-0
20IMG23GB4	**Predictive Business Analytics**	80	20	-	100	3-1-0
20IMG23GB5	**Time Series Econometrics**	80	20	-	100	3-1-0
AGRI-BUSINESS MANAGEMENT						
20IMG23GA1	**Agri-business Environment and Policy**	80	20	-	100	3-1-0
20IMG23GA2	**Food Technology and Process Management**	80	20	-	100	3-1-0
20IMG23GA3	**Agri-business Management**	80	20	-	100	3-1-0
20IMG23GA4	**Agri-business Entrepreneurship**	80	20	-	100	3-1-0
20IMG23GA5	**Agri-Supply Chain Management**	80	20	-	100	3-1-0
Total Credits in 3rd Semester						**35**

SECOND YEAR: FOURTH SEMESTER

Course Code	Title of the Course (s)	External Marks	Sessional / Internal Marks	Practical Marks	Total Marks	Credits (L-T-P)
Core Courses						
20IMG24C1	**B2B Marketing**	80	20	-	100	3-1-0
20IMG24C2	**CSR and Business Ethics**	80	20	-	100	3-1-0
20IMG24C3	**Project Report**	100	100	-	200	8
20IMG24C4	**Comprehensive Viva-voce**	100	-	-	100	4
Discipline Specific Elective Courses (specialization areas offered under dual specialization scheme)						
HUMAN RESOURCE MANAGEMENT						
20IMG24GH1	**Business Negotiations and Employee Relations**	80	20	-	100	3-1-0
20IMG24GH2	**Training and Development**	80	20	-	100	3-1-0
20IMG24GH3	**Managing Interpersonal and Group Processes**	80	20	-	100	3-1-0
20IMG24GH4	**International Human Resource Management**	80	20	-	100	3-1-0
20IMG24GH5	**Performance Management Systems**	80	20	-	100	3-1-0
FINANCE MANAGEMENT						
20IMG24GF1	**Insurance and Risk Management**	80	20	-	100	3-1-0
20IMG24GF2	**Management of Financial Services**	80	20	-	100	3-1-0
20IMG24GF3	**Financial and Commodity Derivatives**	80	20	-	100	3-1-0
20IMG24GF4	**International Financial Management**	80	20	-	100	3-1-0
20IMG24GF5	**Financial Decision Analysis**	80	20	-	100	3-1-0
INFORMATION TECHNOLOGY MANAGEMENT						
20IMG24GT1	**Knowledge Management**	80	20	-	100	3-1-0
20IMG24GT2	**Information Security and Cyber Laws**	80	20	-	100	3-1-0

20IMG24GT3	**Systems Analysis and Design**	80	20	-	100	3-1-0
20IMG24GT4	**Programming in Visual Basic**	50	-	50	100	3-0-1
20IMG24GT5	**E-Business Information Systems Management**	80	20	-	100	3-1-0
INTERNATIONAL BUSINESS MANAGEMENT						
20IMG24GI1	**International Marketing Management**	80	20	-	100	3-1-0
20IMG24GI2	**Cross Cultural and Global Management**	80	20	-	100	3-1-0
20IMG24GI3	**International Business Laws**	80	20	-	100	3-1-0
20IMG24GI4	**Management of Multinational corporations**	80	20	-	100	3-1-0
20IMG24GI5	**International Trade Theory and Practices**	80	20	-	100	3-1-0
MARKETING MANAGEMENT						
20IMG24GM1	**Integrated Marketing Communications**	80	20	-	100	3-1-0
20IMG24GM2	**Marketing Research**	80	20	-	100	3-1-0
20IMG24GM3	**Product and Brand Management**	80	20	-	100	3-1-0
20IMG24GM4	**Sales and Distribution Management**	80	20	-	100	3-1-0
20IMG24GM5	**Industrial Marketing**	80	20	-	100	3-1-0
OPERATIONS MANAGEMENT						
20IMG24GO1	**Transportation Management**	80	20	-	100	3-1-0
20IMG24GO2	**Technology Management**	80	20	-	100	3-1-0
20IMG24GO3	**Warehouse Management and Inventory Control**	80	20	-	100	3-1-0
20IMG24GO4	**Sourcing Management**	80	20	-	100	3-1-0

20IMG24GO5	**Supply Chain Analytics**	80	20	-	100	3-1-0
PUBLIC POLICY MANAGEMENT						
20IMG24GP1	**Public Policy Evaluation**	80	20	-	100	3-1-0
20IMG24GP2	**Social Campaign Promotion**	80	20	-	100	3-1-0
20IMG24GP3	**Sustainable Development**	80	20	-	100	3-1-0
20IMG24GP4	**Rural Development**	80	20	-	100	3-1-0
20IMG24GP5	**Indian Social and Political System**	80	20	-	100	3-1-0
BUSINESS ANALYTICS						
20IMG24GB1	**Economics for Business Strategy**	80	20	-	100	3-1-0
20IMG24GB2	**Applied Multivariate Analysis**	80	20	-	100	3-1-0
20IMG24GB3	**Information Economics and its Applications**	80	20	-	100	3-1-0
20IMG24GB4	**Mathematical Statistics**	80	20	-	100	3-1-0
20IMG24GB5	**Market Microstructure**	80	20	-	100	3-1-0
AGRI-BUSINESS MANAGEMENT						
20IMG24GA1	**Agricultural Input Marketing and Post-Harvest Management**	80	20	-	100	3-1-0
20IMG24GA2	**Livestock Business Management**	80	20	-	100	3-1-0
20IMG24GA3	**Agribusiness Financial Management**	80	20	-	100	3-1-0
20IMG24GA4	**Agricultural Marketing Management**	80	20	-	100	3-1-0
20IMG24GA5	**International Agribusiness Trade**	80	20	-	100	3-1-0
Total Credits in 4th Semester						**36**
Total Credits in MBA Programme						**136**

UNDER DUAL SPECIALIZATION SCHEME EACH STUDENT WILL OPT FOR ONE SPECIALIZAION AREA FROM GROUP A AND ONE FROM GROUP B.

Minimum of fifteen students are required for offering any specialization area in Group A and Group B by the Colleges/Institutions.

GROUP A	GROUP B
FINANCE MANAGEMENT	MARKETING
HUMAN RESOURCE MANAGEMENT	INFORMATION TECHNOLOGY MANAGEMENT
INTERNATIONAL BUSINESS MANAGEMENT	PUBLIC POLICY MANAGEMENT
BUSINESS ANALYTICS	AGRI-BUSINESS MANAGEMENT
OPERATIONS MANAGEMENT	---

PROGRAM SPECIFIC OUTCOMES

The program specific outcomes of Two Year (Four Semester) MBA (General) program are as follows:

PSO1: Graduates are expected to collaborate and lead teams across organizational boundaries and demonstrate leadership qualities, maximize the usage of diverse skills of team members in the related context.
PSO2: Comprehend and analyze the importance of functional and inter functional areas.
PSO3: Recognize opportunities available and face the challenges in national and global business environment and adapt accordingly.
PSO4: Employ appropriate models to select suitable projects for a business enterprise and manage firm growth through strategies such as mergers, acquisitions, international expansion, and new venture development.
PSO5: Function as ethical, conscious and socially responsible managers, capable of contributing to the sustainable development of the nation.
PSO6: Preparing the students to lead a successful career in industry or pursue higher studies or become an entrepreneur
PSO7: Ability to offer commercially feasible and socially acceptable, managerial solutions to technical/non-technical problems.
PSO8: Turning out graduates having the capability to demonstrate strong leadership skills, effective communication skills, professional etiquette and a desire to be a lifelong leaner.

Note:

1. The duration of all the end term theory examinations shall be 3 hours.
2. The Criteria for awarding internal assessment of 20 marks shall be as under:
   a) Class test : 10 marks.
   b) Assignment and Presentation : 5 marks
   c) Attendance : 5 marks
      Less than 65% : 0 marks
      Upto 70% : 2 marks
      Upto 75% : 3 marks
      Upto 80% : 4 marks
      Above 80% : 5 marks

Management Concepts and Organizational Behavior

Course Code: 19IMG21C1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: analyze the behavior of individuals and groups in organizations in terms of the key factors that influence organizational behavior.
CO2: identify the core competencies, managerial roles and significance of emotional intelligence at work.
CO3: assess the potential effects of organizational factors on organizational behavior.
CO4: explain the organizational culture and describe its dimensions and to examine various organizational designs
CO5: assess organization and classify the contributing disciplines, approaches to OB and understanding challenges and opportunities for OB.
CO6: apply motivational and leadership theories to resolve problems of employee absenteeism, turnover, stress, job satisfaction, job performance and organizational commitment.

UNIT- I
Nature, Scope and Evolution of Management, Functions, Skills, Roles of Management. Managerial Competencies, Core competencies, Emotional intelligence at work place, Dynamics in social Milieu.

UNIT- II
Motivation: Nature and Theories; Content and Process Theories
Leadership: Nature and Theories: Trait, Behavioral and Contingency approach, Leadership development for learning organizations.

UNIT- III

Foundations and Background of Organizational behavior, Interpersonal: Group behavior, Dynamics Formation and stages, Team building and Intrapersonal process: Attitude, Personality, Perception

UNIT- IV
Organizational process and structure: Work Innovation and Job design, Organization climate and culture, Organization change and development and control.

Recommended Readings:

1. Robbins, S.P. and Decenzo, D.A. Fundamentals of Management, Pearson Education
2. Hellreigel, Management, Thomson Learning, Bombay
3. Koontz, H and Wechrich, H; Management, Tata McGraw Hill
4. Stoner, J et. al, Management, Pearson Education
5. Robbins and Coulter, Management, Pearson Education
6. Pravin Durai, Principles of Management, Pearson Education.
7. Satya Raju, Management – Text and Cases , PHI, New Delhi
8. Richard L. Daft, Management, Thomson South-Western
9. Nelson, Debra L and James C Quick, Organizational Behavior, Thomson Learning
10. Hellgiegel, D and J.W. Slocum, Organizational Behavior, Thomson Learning
11. Luthans, Fred, Organizational Behavior, McGraw Hill, New York
12. New Storm and Keith Davis, Organization Behavior , TMH, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Managerial Economics

Course Code: 19IMG21C2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: define the basic elements of managerial economic aspects of firm.
CO2: forecast demand for a product.
CO3: know what to produce, where to, when to, how to, for whom to produce.
CO4: frame policy for production to minimize the cost and maximum the profit.
CO5: construct the cost function.

UNIT-I
Nature and scope of managerial economics; nature of marginal analysis; alternative objectives of business firms; cardinal utility theory; indifference curve technique and the theory of consumer choice; consumer surplus; price, income and substitution effects; demand elasticity; demand estimation and forecasting; relationship between price elasticity and marginal revenue.

UNIT-II
Law of variable proportions; laws of return; optimal input combination; output-cost relations; engineering cost curves; technological change and production decisions; revenue curves of a firm; price-output decisions under alternative market structures; shut-down points; Baumol's sales maximization model; advertising and price-output decisions.

UNIT-III
Product differentiation; price-output decision in multi-plant and multi-product firms; general pricing strategies; special pricing techniques – limit pricing, peak load pricing and transfer pricing; dumping analysis; pricing of public utilities.

UNIT-IV
Risk analysis; investment and capital replacement decisions; locational choice of a firm; measures of national income; business cycles; operative aspects of macroeconomic policies; inflation analysis; tariff analysis.

Recommended Readings:

1. Hirschey, Mark, Managerial Economics, Thomson Learning, Bangalore
2. V. Agarwal, Managerial Economics, Pearson Education.
2. Monroe, Kent B., Pricing-Making Profitable Decisions, McGraw-Hill, New York
3. Keat, Paul B., and Philip K.Y. Young, Managerial Economics – Economic Tools for Today's Decision Makers, Pearson Education
4. Salvatore, Dominick, Managerial Economics in a Global Economy, Thomson Learning, Hyderabad

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Accounting for Managers

Course Code: 19IMG21C3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand and apply accounting concepts, principles and conventions for their routine monetary transaction;
CO2: recognize circumstances providing for increased exposure to fraud and define preventative internal control measures.
CO3: create and prepare financial statements in accordance with Generally Accepted Accounting Principles
CO4: analyze, interpret and communicate the information contained in basic financial statements and explain the limitations of such statements.

UNIT-I

Accounting- Meaning, types, objectives and users of accounting system, Accounting principles- concepts and conventions, accounting cycle-journalization, posting to ledger accounts, preparation of trial balance and final accounts. An overview of IFRS and accounting standards (AS) in India

UNIT-II

Depreciation accounting for fixed assets- objectives, factors affecting depreciation and methods, financial statement analysis- ratio analysis, fund flow analysis and cash flow statement analysis. ^

UNIT-III

Reporting of financial performance- Disclosure in corporate financial reports and their importance, Budgetary control- Budget, budgeting and budgetary Control, classification of budget and preparation, importance and limitations of budgetary control.

UNIT-IV

Marginal Costing and analysis- contribution, break-even point, profit-volume ratio, margin of safety and their applications in managerial decision making, Balanced scorecard- a tool of interactive control.

Recommended Readings:

1. Dhamija, S. Financial Accounting for Managers, Pearson Education.
2. P.C Tulsian, Financial Accounting, Pearson Education.
3. Horngren/Sundem- Introduction to Management Accounting, Pearson Education.
4. Khatri, K. Dhanesh, Financial Accounting, McGraw Hill Education.
5. Ramachandran, N. andKakani, R.K. Financial Accounting for Management, McGraw Hill Education.
6. Bhattacharya, S.K, Accounting for Management: Text and Cases, Vikas Publishing House.
7. Khan, M. Y and Jain, P.K Management Accounting, McGraw Hill Education.
8. Horngren, Charles T., Sundem, Gary L., Elliott, John. A and Philbrick, Donna, Introduction to Financial Accounting, Pearson Education. -
9. Narayanaswamy, R., Financial Accounting - A Managerial Perspective, PHI Learning.
10. Gupta, Ambrish, Financial Accounting for Management: An Analytical Perspective, Pearson Education.
11. Anthony, Robert N. etal. Accounting: Text and cases, McGraw Hill Education.
12. Shah: Management Accounting, Oxford University Press. '
13. Hansen, D.R. andM owen, M.M., Management Accounting, Thomson South western.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section** A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Business Statistics and Analytics

Course Code: 19IMG21C4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: gain knowledge of basic concept / fundamentals of business statistic.
CO2: develop practical understanding of various statistical concepts.
CO3: compute various measures of central tendency, measures of Dispersion, Time Series Analysis, Index Number, Correlation and Regression analysis and their implication on Business performance.
CO4: understand basic concepts of probability and judge probability theoretical distributions
CO5: take managerial decision and applying the Concept of Business Analytics.

UNIT- I

Definition, role and application. Measures of central tendencies and their application. Measures of dispersion: range, quartile deviation, standard deviation, coefficient of variance and mean deviation. Skewness and kurtosis.

UNIT- II

Correlation: meaning and type of correlation - positive correlation, negative correlation, linear and non-linear correlation. Scatter diagram, Karl Pearson's coefficient of correlation, properties of correlation coefficient, probable error of correlation coefficient. Multiple and partial correlation coefficient.
Regression: Meaning and types- simple and multiple regression, linear and non-linear regression, regression lines, and properties of regression.

UNIT- III

Time Series: introduction, objectives and identification of trends – variation in time series, secular variation, cyclical variation, seasonal variation and irregular variation. Methods of estimation of trends- moving average and least square method.
Index number: definition, uses, types, simple aggregate method and weighted aggregate method- Laspeyre's, Paasche's, Fisher's and CPI. Construction of index numbers and their uses.

UNIT- IV

Sampling: meaning and basic sampling concept, sampling and non-sampling errors.
Hypothesis testing: formulation and procedure for testing a hypothesis. Large and small sample test- z, t, F test and ANOVA (one way). Non-parametric test: chi-square test, sign test, Kruskal–Wallis test.
Concept of Business Analytics- Meaning, types and application of Business Analytics.

Recommended Readings:

1. Levin, R.I. and Rubin D.S., Statistics for Management, Pearson Education.
2. Gupta, S.P. and Gupta, M.P., Business Statistics, Sultan Chand and Sons.
3. Sharma, J.K., Business Statistics, Vikas Publication House Pvt. Ltd.
4. Bajpai, Naval, Business Statistics, Pearson Education.
5. Davis and Pecar: Business Statistics using Excel, Oxford University Press.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Operations Management

Course Code: 19IMG21C5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the role of Operations in overall Business Strategy of the firm.
CO2: understand the application of operations management policies and techniques to the service sector as well as manufacturing firms.
CO3: identify and evaluate the key factors and their interdependence of these factors in the design of effective operating systems.
CO4: understand the trends and challenges of Operations Management in the current business environment.
CO5: apply the techniques for effective utilization of operational resources and managing the processes to produce good quality products and services at competitive prices.

UNIT-I

Introduction to operations Management: Objectives, Functions and Scope, types of production systems, operations strategy; Facility Planning, Factors Affecting Plant location and plant layout; Tools and Techniques used for Plant Layout Planning.

UNIT-II

Production Planning and Control Process Planning, Aggregate Production Planning, Capacity Planning: Introduction, Capacity Planning; Product Design, and Development; Project Scheduling, Network Diagrams, Critical Path Method (CPM), Critical Path Method: Problems, Critical Path Method: Problems. Program Evaluation and Review Technique (PERT), Sales forecasting, Forecasting system- Qualitative and Quantitative methods.

UNIT-III

Materials Management - Concepts, Objectives, Functions, Materials Requirement Planning (MRP)-I, Materials Requirement Planning (MRP)-II Purchasing Management - Objectives; Functions; Methods; Procedure Management - Types of Stores; Functions; Coding Methods. Value Analysis - Concepts Inventory Management - Objectives, Factors, Process, Inventory control techniques- ABC, VED, EOQ, SED, FSN analysis. Maintenance Management - Concepts; Objectives; Functions; Types of Maintenance

UNIT- IV

Quality management: Introduction; Meaning, Concept of Quality, Total Quality Management (TQM), Total Productive Maintenance (TPM), Statistical Quality Control (SQC), concept of Six Sigma and its application; Advanced Manufacturing Technologies: Just in Time (JIT), KANBAN System, Enterprise Resource Planning (ERP), TOC, Lean/ Green Manufacturing, WCM etc. and safety concepts.

Recommended Readings:

1. R. Paneerselvam, Production and Operations Management; PHI; New Delhi
2. Mahadevan, B.; Operations Management - Theory and Practice; Pearson Education
3. Bedi, Production and Operations Management, 2/e, Oxford University Press.
4. K. N. Dervitsiotis, Operation Management, McGraw-Hill International Company.
5. Jay Heizer and B. Render, Operation Management, Pearson Education
6. Gaither, Norman and Frazier, Greg; Operations Management; Thomson Learning; New Delhi
7. Krajewski, Lee J. and Ritzman, Larry P.; Operations Management - Processes and Value Chains; Pearson Education

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Computer Fundamentals and Office Automation Tools

Course Code: 19IMG21C6

L-T-P
3-0-1

External Marks: 50
Sessional Marks: 50
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand computer hardware, software and computer applications, computer network, internet and office automation tools in business.
CO2: learn applications of MS Office and Internet in businesses.
CO3: demonstrate the ease to work with MS Word and explain the fundamentals of MS Excel and manipulate various functions and commands;
CO4: elucidate the need of MS PowerPoint, design & templates and manipulate records, creating records and web designing using PPT.
CO5: creating the databases and handling operations on the data using MS Access.

UNIT-I

Introduction to Computers: Characteristics, capabilities, limitations and applications of computers; types of computers; computer hardware, software; block diagram of computer and overview of working; types of computer language; generation of computer languages; functions and types of operating system

UNIT-II

Internet: Internetworking, Concepts, Internet Protocol Addresses, WWW Pages & Browsing, Security, Internet Applications, Analog and Digital Signals, Bandwidth, Network Topology, Packet Transmission, Long Distance communication, E-mail.

UNIT-III

Documentation using MS-Word – Creating and Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Advance Features of MS-Word-Mail Merge, Printing

Electronic Spread Sheet using MS-Excel - Introduction to MS-Excel, Creating and Editing Worksheet, Formatting and Essential Operations, Formulas and Functions, Charts

UNIT-IV

Presentation using MS-PowerPoint: Presentations, Creating Manipulating and Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering Art Objects, Animations and Sounds

Introduction to database: Concept, Characteristics, Objectives, Advantages and limitations, entity, attribute, schema, subschema; Database management using MS-Access.

Recommended Readings:

1. Microsoft Office Complete Reference. BPB Publication.
2. Rajaraman V. (Feb. 2010). Fundamentals of Computers. PHI.
3. Sinha P.K. (2004). Computer Fundamentals. BPB Publication
4. Stultz, Russell A. Learn Microsoft Office. BPB Publication.
5. Taxali, Ravi Kant. (2014). Computer Course windows 7 and Office 2010. India: McGraw Hill Education.
6. Saxena, Computer Applications in Management, Vikas Publication, New Delhi
7. B. Ram, Computer Fundamentals, New Age Publications, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Business Environment

Course Code: 19IMG21C7

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand relationship between environment and business and applying the environmental analysis techniques in practice
CO2: understand Economic, Socio-Cultural and Technological Environment
CO3: evaluate state policies, Economic legislations and Economic reforms laid by the government

UNIT-I

The concept of Business Environment, significance and nature. Environment Scanning: meaning, nature and scope, the process of environmental scanning, Interaction between internal and external environments, basic philosophies of Capitalism and Socialism with their variants. Concepts of Mixed Economy

UNIT-II

Overview of Political, Socio-cultural, Legal, Technological and Global environment. Recent developments with regard to enactment of business laws. An introduction to MRTP, CCI, FEMA, SEBI Act, Consumer Protection Act; The changing dimensions of these laws and their impact on business

UNIT-III

Current industrialization trends and industrial policy; Economic environment for skill development in start-ups and the MSME sector. Infrastructure development and policy; public sector reforms and performance; public and private partnership; intellectual property regime and the R and D environment; trends in service sector growth; banking reforms and challenges; business opportunities in the rural sector.

UNIT-IV

Globalization trends and challenges; balance of payments trends; environment for foreign trade and investment; exchange rate movements and their impact; India's competitiveness in the world economy; external influences on India's business environment. Policies with regard to foreign trade and investment.

Recommended Readings:

1. Saleem Shaikh "Business Environment", Pearson Education
2. Aswathappa, K., "Essentials of Business Environment", Himalaya Publishing House, New Delhi.
3. Cherunilam, Francis, "Business Environment-Text and Cases", Himalaya Publishing House, New Delhi.
4. Pual, Justin, Business Environment Text and Cases, Tata McGraw Hill, New Delhi
5. Mishra S K and Puri V K - Economic Environment of Business, Himalaya Publishing House, New Delhi.
6. Adhikari M, Economic Environment of Business, Excel Books, New Delhi.
7. Dutt, Ruddra and Sundaram, K.P.M., "Indian Economy", S. Chand and Co. Ltd., New Delhi.
8. Gopal, Namita, "Business Environment", Tata McGraw Hill, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Business Communication Skills

Course Code: 19IMG21D1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: describe the basics of communication and its process, elements and importance.
CO2: understand the various barriers in the communication.
CO3: outline the listening skills and the characteristics of good and poor listeners
CO4: identify the various types of listening, its approaches, and barriers.
CO5: explain the effectiveness of oral communication and its application in-group presentation.

UNIT-I

Business communication: Definition, Nature, Process and classification of communication; Importance of communication in management; barriers to communication, overcoming barriers to communication, effective communication; contemporary issues in communication.

UNIT-II

Communication skills: Listening skills- Listening process, types of listening, barriers to listening, improving listening abilities; presentation skills; communication skills for interviews and Group discussions; Basic interviewing skills- Board room Interview preparation, Expressive behavior, Techniques for removing anxiety, fear and inhibitions.

UNIT-III

Nonverbal communication: Body language, Kinesic communication, proxemic communication, haptic communication, paralinguistic communication, Chromatic communication, chronomatic communication,; Business etiquettes- introduction, etiquettes, exchanging business cards, shaking hands, e mail etiquettes, telephone etiquettes, telemarketing etiquettes, elevator , dressing and grooming etiquettes, dining etiquettes.

UNIT-IV

Written communication: Report writing-process of report writing, structures of business reports, business letter components and layout, types of letters; memos, notices and circulars; agenda and minutes of meeting, preparing curriculum vitae.

Recommended Readings:

1. Kaul, Asha, Business Communication, PHI, New Delhi
2. Chaturvedi, P.D., and Mukesh Chaturvedi, Business Communication, Pearson Education
3. McGrath, E.H., Basic Managerial Skills for All, PHI, New Delhi
4. Sinha, K.K. , Business Communication, Taxman Publication, New Delhi
5. Koneru, Arun, Professional communication, McGraw Hill, New Delhi
6. Mehra, Payal, Business Communication for Managers, Pearson Education.
7. Verma, Shalini, Business Communication: Essential Strategies For Twenty First Century Managers, Vikas Publishing House, Noida
8. Sethi, Flatley, Rentz, Lentz, Pande, Business communication: Connecting A Digital World, McGraw Hill, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Event Management

Course Code: 19IMG21D2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: get familiarity with event management industry.
CO2: organize events successfully.
CO3: position themselves and their services in event management industry.

UNIT-I
Events – Nature, definition and scope, C's of events, designing, interaction and importance; Event marketing tools – various needs addressed by events, focusing and implementing events, advantages and disadvantages of events

UNIT-II
Elements of Events – Event, infrastructure, target audience, organizers, venue, media activities to be carried out; concept of market in events, segmentation and targeting of the market events

UNIT-III
Positioning in events and the concept of event property; events as a product, methods of pricing events, events and promotion, various functions of management in events

UNIT-IV
Strategic alternatives arising from environment, competition and defined objectives; pricing objectives; evaluation of event performance – measuring performance and correcting deviations

Recommended Readings:

1. Lynn Van Der Wagen, Event Management, Pearson Education
2. Shone, Anton and Bryn Parry, Successful Event Management, Cengage Learning India Pvt. Ltd, New Delhi
3. Gaur, S.S. and Saggere, S.V., Event Marketing Management
4. Panwar, J.S., Marketing in the New Era, Sage Publications, 1998
5. Avrich, Barry, Event and Entertainment, Delhi, Vision Books, 1994

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Financial Management

Course Code: 19IMG22C1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: describe about various financial management concepts.
CO2: apply the concept of time value of money.
CO3: categorize and analyze different capital budgeting techniques.
CO4: appraise different project proposals for decision-making.
CO5: estimate cost of capital for long term source of finance.

UNIT-I

Financial management-scope finance functions and its organization, objectives of financial management; time value of money; sources of long term finance.

UNIT-II

Investment decisions importance, difficulties, determining cash flows, methods of capital budgeting; risk analysis (risk adjusted discount rate method and certainty equivalent method); cost of different sources of raising capital; weighted average cost of capital.

UNIT-III

Capital structure decisions-financial and operating leverage; capital structure theories - NI, NOI, traditional and MM theories; determinants of dividend policy and dividend models -Walter, Gordon and MM models.

UNIT-IV

Working Capital- meaning, need, determinants; estimation of working capital need; management of cash, inventory and receivables.

Note: The topic of capital budgeting, management of cash, inventory management, and receivable management will cover theoretical concepts and simple numerical questions.

Recommended Readings:

1. Pandy, I.M., Financial Management, Vikas Publishing House, New Delhi
2. Khan M.Y, and Jain P.K., Financial Management, Tata McGraw Hill, New Delhi
3. Berk, De Marzo, Harford, Fundamental of Corporate Finance, Pearson Education.
4. Chandra, Prasanna, Financial Management, TMH, New Delhi
5. Van Horne, James C., Financial Management and Policy, Pearson Education
6. Brigham and Houston, Fundamentals of Financial Management, Thomson Learning, Bombay.
7. Kishore, R., Financial Management, Taxman's Publishing House, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Marketing Management

Course Code: 19IMG22C2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the marketing concepts and its evolution
CO2: analyze the market based on segmentation, targeting and positioning
CO3: know the consumer behavior and their decision making process
CO4: make decisions on product, price, promotion mix and distribution
CO5: understand the rural markets and the contemporary issues in marketing

UNIT -I

Introduction to marketing: Nature, scope, core concepts, tasks of marketing management, and corporate orientation towards marketplace; marketing environment; marketing research and information system; developing marketing strategy and plan; ethical issues in marketing.

UNIT -II

Understanding consumer and business markets: Consumer buying decision process in consumer and business markets; building customer value, satisfaction and loyalty; managing customer relations; Market segmentation, targeting and positioning approaches to deal with market competition; tools of product differentiation.

UNIT -III

Product and pricing decisions: Product life cycle, product mix and product line decisions, new product development process; branding, packaging and labelling decisions; pricing objectives, determinants of price, pricing methods and strategies.

UNIT -IV

Promotion and distribution decisions: Promotion mix - Advertising and sales promotion; public relations; personal selling; Channels of distribution: functions of intermediaries, channel design decisions, selecting channel members, channel management; wholesaling and retailing.

Contemporary marketing trends and issues: Globalization, consumerism, green marketing, digital marketing; evaluation and control of marketing effort; reasons for and benefits of going international; entry strategies in international marketing.

Recommended Readings:

1. Kotler Philip and Keller; Marketing Management, Pearson Education, New Delhi
2. Kotler, Philip, Kevin Keller, A. Koshy and M. Jha, Marketing Management in South Asian Perspective, Pearson Education, New Delhi
3. Kerin, Hartley, Berkowtz and Rudelius, Marketing, TMH, New Delhi
4. Etzel, Michael J, Marketing: Concepts and Cases, TMH, New Delhi
5. Dhunna, Mukesh, Marketing Management – Text and Cases, Wisedom Publications, New Delhi
6. Capon, Noel and Singh Siddharth; Managing Marketing-An Applied Approach, Wiley Publications, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Human Resource Management

Course Code: 19IMG22C3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: discuss the history and evolution of HRM.
CO2: explain the importance of HRM in the organizations through their roles &responsibilities, challenges etc.
CO3: assess the major HRM functions and processes of HRM planning, job analysis and design, recruitment, selection, training and development, compensation and benefits, and performance appraisal
CO4: identify strategic HR planning and the HRM process to the organization's strategic management and decision making process.
CO5: explain how training helps to improve the employee performance.

UNIT-I

Strategic importance of HRM; objectives of HRM; challenges to HR professionals; role, responsibilities and competencies of HR professionals; HR department operations; human resource planning– objectives and process; human resource information system, contemporary issues in human resource management

UNIT-II

Talent acquisition: recruitment and selection strategies, career planning and management, succession planning, socialization and induction of new employees; training and development, investment in training, training need assessment, designing and administering training programme; executive development programme, evaluation of T& D programme

UNIT-III

Appraising performance: developing and instituting performance appraisal system, assessment and development centers, potential appraisal; rewarding performance: linking rewards to organizational objectives, determine compensation structure, pay for performance and incentive plans, ESOP, executive compensation, designing and administering benefits and services

UNIT-IV

HR in knowledge era: HR in knowledge industry, HR in virtual organizations, HR in mergers and acquisitions, outplacement, outsourcing HR functions, employee leasing, HR audit, international HRM

Recommended Readings:

1. Dessler, Gary, Human Resource Management, Pearson Education
2. Ivanceivich, John M., Human Resource Management , Tata McGraw Hill, New Delhi
3. Gomez. Megia, Luis, David Balkin, and Roberty Cardy, Managing Human Resources, Pearson Education
4. Mathis, Robert, and John Jackson, Human Resource Management, Thomson Learning Inc.
5. Shell, Scott and George Bohlander, Human Resource Management, Thomson Learning Inc.
6. Pattanayak, Biswajert, Human Resource Management, PHI, New Delhi
7. Jyothi P. and D.N.Venkatesh, Human Resource Management, Oxford University Press, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Business Research Methods

Course Code: 19IMG22C4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: acquire knowledge on various kinds of research questions and research designs.
CO2: distinguish between qualitative, quantitative and mixed methods of research
CO2: relate ethical and philosophical considerations
CO3: design a good quantitative purpose statement and good quantitative research
CO4: understand good practices in conducting a qualitative interview and observation.

UNIT-I
Business research; its concept, nature, scope, need and managerial value of business research; components of theory – definitions, concepts, constructs, variables, hypothesis, process of research and structure of research proposal

UNIT-II
Research design – concept and types – exploratory, descriptive, diagnostic and experimental; sampling design; techniques, factors influencing sample size, measurement – concept, measurement scales – types and construction of scales and reliability and validity aspects in measurement

UNIT-III
Methods of data collection – questionnaire/schedule; questionnaire designing, interview and observational methods; data analysis and interpretation, editing, coding, content analysis and tabulation; hypothesis testing – an overview of parametric and non-parametric tests (Analysis of Variance, X test, Wilcoxon Matched – pairs signed – rank test, Mann – Whitney test, Kruskal– Wallis H-test)

UNIT-IV
An overview of dependent and interdependent methods (multiple regression, discriminant analysis, conjoint analysis, factor analysis, cluster analysis); ingredients and constructions of research report; procedure of preparation of reference and bibliography

Recommended Readings:

1. Naval Bajpai, Business Research Methods, Pearson Education
2. Zikmund, Millian G., Business Research Methods, Thomson Learning, Bombay
3. Cooper, Donald R- and Pamels Schindler, Business Research Methods, Tata McGraw Hills, New Delhi
4. Geode, Millian J. and Paul K. Hatl, Methods in Research, McGraw Hills, New Delhi
5. Sekran, Uma, Business Research Method, Miley Education, Singapore
6. Kothari, C.R., Research Methodology

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

IT Infrastructure Management
Course Code: 19IMG22C5

L-T-P
3-0-1

External Marks: 50
Sessional Marks: 50
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: Describe the digital technologies and channels being leveraged by businesses.
CO2: Explain the role of data governance and cloud services in determining the success or failure of a business system.
CO3: Explain the competitive advantage of data management and business intelligence.
CO4: Identify opportunities to apply IT infrastructure to improve business efficiency.
CO5: Explain why IT infrastructure management is a business priority.

UNIT -I
Introduction to IT infrastructure: Data networks and Application Programme Interface (API) – fundamentals, corporate network functions, business uses, wireless and mobile infrastructure, messaging and collaboration technology, data breaches and cyber security challenges, IT risk management, mobile app and cloud security challenges, financial crimes and fraud defenses, sustainability and the triple bottom line approach

Internet technologies and search strategies: Search technology, organic search and search engine optimization, paid search strategies and metrics, semantic web and search

UNIT -II
Information technology in business: Digital technology transforming business processes, competitive advantage and SWOT analysis

Building business capabilities with data governance and cloud services: data governance strategy, enterprise IT architecture, information and decision support systems, data centers and cloud computing, cloud services delivery model

UNIT -III
Data management, Big Data, and Business Intelligence: Data management technologies and techniques, Transaction processing and analytics processing systems, dirty data costs and consequences, data ownership and organizational politics, data life cycle, Big Data analytics, data and text mining, data visualization, enterprise data mashups, digital dashboards, and business intelligence

UNIT -IV
Networked economy: Impact of computer networks on business, elements of networked economy, using IS functions to deal with business risks, privacy, health and ethical issues in networked economy, future of the networked economy.
HTML: Build a simple HTML document, tables, frames, links, adding multimedia documents, home page.

Lab: Web Designing in HTML, Internet Surfing.

Recommended Readings:
1. Turban, Vonino and wood, Information Technology for Management, Wiley Publications, New Delhi.
2. McKeown, Information Technology and the Networked Economy, Thomson Learning
3. Miller, Data and Network Communication, Vikas Publishing House, New Delhi.
4. Hagg, Baltzan & Philips, Business Driven Technology, TMH, N. Delhi.
5. Molly, Using HTML 4, PHI, Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Entrepreneurship

Course Code: 19IMG22D1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: develop entrepreneurship as a field of study and as a profession.
CO2: understand the creative process of opportunity identification and screening.
CO3: understand the importance of innovation in the creation of sustainable competitive advantage.
CO4: understand techniques to test a business model to ensure its viability.

UNIT-I
Entrepreneurship: Concept, theories, process, factors impacting emergence of entrepreneurship, Growth of entrepreneurship environment in India, Role of entrepreneurship in economic development, Traits of successful entrepreneurs; Managerial vs. entrepreneurial approach, Entrepreneurial promotion in India.

UNIT-II
Starting the venture: Creative thinking, Business idea generation (Business cases on entrepreneurship), Environmental scanning pertaining to business idea: Feasibility study: Market feasibility, Technical/ Feasibility operations, financial feasibility, Project Report.

UNIT-III
Functional Plans: Drawing a business plan, selecting organization type for business, Organization structure and Job designs, Designing financial plan: Investment, Incomes and Expenditure, Banking and Accounts, understanding profitability.

UNIT-IV
Sources of Finance: understanding Financial Framework: Debt Equity Financing, Commercial banks, Venture Capital, Financial institutions supporting entrepreneurs,
Angel investors.
Understanding IPR: Patents, Trademarks, Copy rights, Trade secrets, Licensing, Franchising.

Recommended Readings:

1. Charantimath, Poornima, Entrepreneurship Development & Small Business Enterprises, Pearson Education.
2. Hisrich, Robert D., Michael Peters and Dean Shephered, Entrepreneurship, Tata McGraw Hill, New Delhi
3. Barringer, Brace R., and R. Duane Ireland, Entrepreneurship, Pearson Education.
4. Lall, Madhurima, and Shikha Sahai, Entrepreneurship, Excel Books, New Delhi.
5. Kuratko, Donand and Richard Hodgetts, Entrepreneurship, Cengage Learning India Pvt. Ltd., New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Creativity and Innovation Management

Course Code: 19IMG22D2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand challenges managers face today in managing innovation; from recognizing the need and desire to be creative and innovative, using imagination to add value, developing structures, systems and incentives that encourage and implement innovation.
CO2: understand and evaluate the relationships among individual, group and organizational creativity and learn about the techniques for ideation.
CO3: question the appropriateness of the features of an organization (eg. structure, culture, etc.) with regards to the characteristics of the innovation in the company.
CO4: evaluate the sustainability and robustness of the innovative competences of a company.
CO5: identify the potential for improving knowledge management in an organization and recommend appropriate mechanisms and understand the challenges in managing discontinuous innovation – in spotting emerging changes early and in organizing and acting to deal with them.
CO6: recognize the role of leadership in managing and championing creativity and innovation in companies.
CO7: assess the strengths and weaknesses of a company's innovative capabilities and opportunities and threats in its external environment, conduct innovation specific SWOT analysis and recommend strategies and action plans for an effective innovation management system.

UNIT-I

Introduction to Innovation and Creativity: Importance of innovation in modern society. Components of Creativity, Creativity Process and Techniques for improving creativity process. Mechanism of Thinking. Barriers to creativity. Organization and personal factors to promote creativity Identification of needs and opportunities. Creative thinking, evaluation of ideas. Demonstration of the novelty. Myths surrounding creativity.

UNIT-II

Creativity Tools and Techniques: Lateral Thinking, Enablers and Barriers to Creativity, Creative Personality, Brainstorming, Entrepreneurial Creativity. Characteristics of Creative Groups, Three Components of Individual Creativity. Time Pressure and Creativity. Analyse various methods that enhance creative ability.

UNIT-III

Innovation: Meaning, Characteristics, Purpose/goals of innovation, Sources of innovation, Types of innovation. Differences between invention and innovation. Factors that Favor Incremental Innovation. Sustainability and Innovation. Innovation Management Strategies. Incubation and Innovation: How Business Incubators Work.
Service Innovations. Innovation Timing, Innovation Management Strategies. Managing Innovation Teams, Implementing Innovation Strategies. Formulate methodologies which enhance innovation. The New Product Development Process. Delineate conditions that support successful new product development.

UNIT-IV

Innovative Entrepreneurship: Models, Dimensions, Degrees, Sources, & Measurement of Innovation. Strategic Management of Innovation: Innovation Strategies, Stage-Gate Models, Timing of Entry & Strategy, Core competences & Robustness Knowledge management. Leadership in Managing Creativity & Innovation

Recommended Readings:

1. Khandwalla, N. Pradip (2009). Lifelong Creativity – An Unending Quest, New Delhi: Tata McGraw Hill
2. Drucker, F. Peter (2015). Innovation and Entrepreneurship, UK: Elsevier, John Wiley
3. Christensen, M. Clayton, Raynor, E. Michael (2003). The Innovators Solution, Harvard Business School Press Boston
4. De Bono, Edward (2008). Creativity Workout: Exercises to unlock Your Most Creative Ideas, 2/e; Amorata Press
5. De Bono, Edward (2015). Lateral Thinking: Creativity Step by Step, International Edition; Harper Perennial Publishers.
6. Business Innovation in the 21st Century, Praveen Gupta, S Chand.
7. Entrepreneurship & Innovation Management - An Industry Perspective) by R. Gopal and Pradip Manrekar, Excel Books.
8. Creativity, Innovation and Entrepreneurship by U. Jerinabi and P. Santhi Allied Publishers Pvt. Ltd.

Instructions for External Examiner: The question paper shall be divided in two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Strategic Management

Course Code: 20IMG23C1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the overview of strategic management
CO2: analyze the internal and external environment, formulate strategic intent and understand the different levels of strategy.

UNIT-I

Introduction to Business Policy and Strategic Management: Definition, Concept, Objective and Significance, The levels at which strategy operates, Characteristic of Strategic Management, An Overview: Strategic Management Process, Concept of Strategic Decision Making. Defining strategic intent: Vision, Mission, Business definition, Goals and Objectives.

UNIT-II

Environment Appraisal: Concept and Environmental Sector; PEST Analysis, Organizational Appraisal: Concepts and Capability Factors; Porter's Value Chain Model, Framework for developing Strategic Advantage, SWOT Analysis as a Tool for assessing Organizational Capabilities and Environment Opportunities, Type of Strategies: Corporate Level (Concept of Grand Strategies), Business Level and Functional Level., Guidelines for Crafting Successful Business Strategies. Strategy Analysis and Choice: Corporate Level Strategy Analysis: BCG Matrix and GE 9 cell Matrix, Business Level Strategy Analysis: Life Cycle Analysis, Porter's Five Forces of Industry Analysis, Concept of Strategic Decision Making, Subjective Factors in Strategic Choice and Process of Strategic Choice

UNIT-III

Strategy Implementation: Interrelation Between Strategy Formulation and Implementation, Aspects of Strategy Implementation, An overview of Project, Procedural Implementation, Resource Allocation, Structural Implementation: An overview of: Structural Consideration, Structure for Strategies, Behavioural Implementation: An overview of: Leadership, Corporate Culture, Corporate Politics and Use of Power, Personal Values and Business Ethics, Functional /Operational Implementation: An overview of: Functional Strategies.

UNIT-IV

Strategy Evaluation and Control: An Overview of Strategic Evaluation and Control, Strategic Control and Operational Control, Techniques for Strategic Evaluation and Control, Role of Organizational Systems in Evaluation, McKinsey's 7s Framework.

Recommended Readings:

1. Kazmi, Azhar, "Business Policy and Strategic Management", TMH, New Delhi.
2. Wheelen and Hunger, Strategic Management and Business Policy, Pearson Education.
3. Chandrasekharan: Strategic Management, Oxford University Press.
4. A A Thompson Jr., A J Strickland III, J E Gamble, Crafting and Executing Strategy- The Quest for Competitive Advantage, Tata McGraw Hill.
5. David, Fred R. "Strategic Management-Concept and Cases", Pearson Education
6. Hitt, M.A., Ireland R.D. and Hos Kisson R.D., "Strategic Management Competitiveness and Globalization" Thomson Asia Pvt. Ltd.
7. Pearce II JA and Robinson Jr., R.B., "Strategic Management-Strategy Formulation and Implementation", AITBS Publishers and Distributors, Delhi.
8. Srivastava R.M. "Management Policy and Strategic Management (Concepts, Skills and Practices)", Himalayan Publishing House.
9. Peter F. Drucker, "Managing in a Time of Great Change", Truman Talley Books / Plume Penguin Group

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Corporate Laws

Course Code: 20IMG23C2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: acquire a sound understanding of the legal aspects of the laws affecting businesses
CO2: apply basic legal knowledge to business transactions.
CO3: communicate effectively using standard business and legal terminology
CO4: analyze a given business context using basic understanding of the applicable Acts and develop a suitable operational framework.
CO5: describe current law, rules, and regulations related to settling business disputes

UNIT-I

Law of Contract- Introduction, kinds of contracts, offer and acceptance, consideration, capacity of parties, free consent, legality of object, performance of contracts, discharge of contract, remedies for breach of contract, indemnity and guarantee, bailment and pledge, agency.

UNIT-II

Law of Sale of Goods- Introduction, contract of sale of goods, conditions and warranties, transfer of property, performance of contract of sale, rights of unpaid seller; Law of Partnership- Introduction, formation, rights duties and liabilities of partners, dissolution of partnership firm, limited liability partnership; Law of Negotiable Instruments- Introduction, parties to negotiable instruments presentation, negotiation, dishonour and discharge.

UNIT-III

Nature and Administration of Companies Act 1956- Salient features, meaning and types of companies, formation of company, memorandum of association, articles of association, shares and share capital.

UNIT-IV

Company meetings and proceedings; Managerial remuneration; Power, duties and liabilities of directors; Winding up of company; Qualification and Statutory liabilities of company secretary; Corporate governance.

Recommended Readings:

1. Maheshwari, S.N. and S.K. Maheshwari; A Manual of Business Law, Himalaya Publishing House.
2. Kuchhal M.C., Modern Indian Law, Shree Mahavir Book Depot.
3. Kuchhal M.C., Business Law, Vikas Publishing House, New Delhi.
4. Kapoor, N.D., Elements of Mercantile Law, Sultan Chand and Sons, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Operations Research

Course Code: 20IMG23C3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: apply research techniques in quantitative and qualitative aspects.
CO2: schedule the projects and find the early ways of finishing it.
CO3: develop simulation models.
CO4: minimize the resource allocation for project.
CO5: maximize the productivity with help of least cost techniques.

UNIT-I
Operations Research: Meaning, origin, scope and role in managerial decision making. Linear programming: Meaning, scope and limitations. Formulation of industrial and business problem as linear programming problems. Solution of linear programming problems by graphical and simplex methods. Degeneracy and duality in linear programming problems.

UNIT-II
Transportation Problems: Balanced and unbalanced cases, Initial basic feasible solution of transportation problems by N/W method, least cost entry method and Vogel's approximation method. Optimal solution of transportation problem by MODI and STEPING STONE method. Degeneracy in transportation problem.
Assignment problems including traveling salesman's problem. Special cases in assignment problems: unbalanced problems, maximization objective and multiple optimal solutions.

UNIT-III
PERT/CPM: Difference between PERT and CPM, network construction, calculating EST, EFT, LST, LFT and floats, probability considerations in PERT, time -cost trade-off.
Decision theory: decision making under uncertainty and risk, Bayesian analysis, decision trees.

UNIT-IV
Game theory: meaning and types of games, types of strategies. Solution of games with saddle point and graphical method. Principle of dominance.
Queuing theory: concept, assumptions and applications. Steady state solution of MM1 and MMK models. Poisson distributed arrivals and exponentially distributed service time models. Simulation: meaning, process, advantages, limitations and applications.

Recommended Readings:

1. Paneerselvam, Operations Research, PHI, N. Delhi.
2. Taha, Operations Research: An Introduction, Pearson Education.
3. Vohra, N.D.; Quantitative Techniques in Management; Tata McGraw Hill Publishing Company Ltd., New Delhi.
4. Kapoor, V.K., Operations Research; Sultan Chand and Sons, New Delhi.
5. Sharma, J.K., Operations Research: Theory and Applications, Macmillan India Ltd, New Delhi.
6. Kalavathy, Operations Research, Vikas Publishing House, New Delhi.
7. Natarajan, A.M, Operation Research, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Compensation and Benefits Management

Course Code: 20IMG23GH1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: learn basic compensation concepts and the context of compensation practice.
CO2: understand skills in designing, analyzing and restructuring reward management systems, policies and strategies.
CO3: understand issues related to the compensation of human resources in organizations
CO4: learn implications for strategic compensation and possible employer approaches to managing legally require benefits

UNIT-I

Compensation: concept, objectives, financial and non-financial compensation system. Economic and Behavioural theories of compensation. Compensation structure, job evaluation, approach to compensation management, significance of employee compensation, new trends in compensation management.

UNIT-II

Wage and salary administration: theories of wage determination, types of wages, salary progression, wage boards and pay commissions. Pay for performance plans, incentive scheme: merits, demerits, types of incentive schemes, group incentive plans. Team based compensation: introduction, design of team based compensation.

UNIT-III

Benefits and services: concept, classification of employee benefits, factors influencing benefits, competency based compensation, Executive compensation: introduction, components and executive compensation design. Compensation of special groups, Employee reward system in India.

UNIT-IV

Strategic compensation management: strategic compensation design and policies, Legal framework of compensation, retirement plans, employee welfare and working conditions-statutory and voluntary measures. Taxation issues and employee compensation: tax implications of compensation, compensation and the Income Tax Act.

Recommended Readings:

1. Singh, B.D., "Compensation Reward Management", Excel Books, New Delhi.
2. Bhattacharya, Deepak: Compensation Management, Oxford University Press.
3. Milkovich, George T and Newman J.M., "Compensation", Tata McGraw Hill, New Delhi
4. Henderson, RI., "Compensation Management", Pearson Education.
5. Martocchio, J.J., "Strategic Compensation", Pearson Education.
6. Armstong, M and Murlis H, "Reward Management", Kogan Page, UK.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Organizational Change and Intervention Strategies

Course Code: 20IMG23GH2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: learn about the change facilitators using the knowledge and techniques of behavioral science.
CO2: plan and implement change at the individual group and organizational level.
CO3: understand models and theories of change management.
CO4: understand issues and conditions creating the need for change in modern organizations.

UNIT-I

Organizational Change: The domain of change, concept, change agents, strategic management of change; Managerial approaches for implementing change; Models of organizational change, Kurt Lewin's models of change, Huse's 7 stages model of change.

UNIT-II

Change Management: Change process, facilitating change, dealing with individual and group resistances, Intervention strategies and developing learning organization. Organizational Diagnosis- Meaning and importance, Weisbord's model of organizational diagnosis and Methods of obtaining diagnostic information.

UNIT-III

Organizational Development: An overview, Steps in OD process, General OD Competencies, OD Skills, Values, Assumption and Beliefs in OD; Designing OD Interventions- Interpersonal, Team, Intergroup, Structural and Comprehensive Interventions; Evaluation of Organizational Development Interventions

UNIT-IV

Organizational Culture and Change; Corporate Culture, Types of Culture, Importance, Nature, Formal and Informal Components of Organizational Culture, Designing Cultural Change; Organizational Culture and Leadership; Emerging Trends in Organizational Culture; Ethics of OD Professionals and Future of OD.

Recommended Readings:

1. French, W. H. and Bell, Organization Development, Pearson Education
2. Singh, K., Organization Change and Development, Excel Books
3. Huse, F. E. and Cummings, T. G., Organization Development and Change, West.
4. De Nitish, Alternative Designs of Human Organizations, Sage.
5. Harvey, D.F. and Brown, D.R., An Experiential Approach to Organization Development, Pearson Education

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Human Resource Metrics and Analytics

Course Code: 20IMG23GH3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: relate the importance of using data base reasoning to support the HR decisions
CO2: conduct detailed problem analysis assessment and generate decisions based on evidence rather than opinion.
CO3: understand the usefulness of HRM matrix and analytic at the work place.
CO4: align the people strategy with the business strategy in today's workforce Organization.

UNIT -I

HR Analytics: Evolution of HRIS and HR Analytics. Types and Measures - HR Productivity Metrics and Human Capital Metrics. HR Analytics Maturity Model, CEO/ Managers - HR expectations on Analytics, understanding HR indicators, metrics and data, Data collection, tracking, entry. Relational databases and HR systems.

UNIT-II

E-HRM, Planning and implementing a new HRIS, Security and privacy considerations, Statistical analysis for HR (regression analysis, measures of central tendency) Graphs, tables, spreadsheets, data manipulation (using Excel).

UNIT- III

Benchmarking and best practices, Staffing, Supply and demand forecasting, Total compensation analyses, Cost justification-return on investment, Communicating recommendations.

UNIT -IV

Perspective of analytics in HR, Translator role, resistance to workforce analytics, emerging data sources, workforce analytics function, modelling in HR: descriptive and indicative models for employee retention and turnover.

Recommended Readings:

1. Becker B.E., Huafelid M.A. and Ulrich D. "The HR Scorecard: Linking people, strategy, and performance", Harvard Business Review Press.
2. Nigel Guenole, Jonathan Ferrar, Sheri Feinzig, "The Power of People", Pearson Education
3. Sesil, "Applying Advanced Analytics to HR Management Decisions", 1e, Pearson Education.
4. Soundararajan, "Winning on HR Analytics", Sage Publication.
5. Bhattacharya, "HR Analytics: understanding Theory and Applications", Sage Publication.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Management of Industrial Relations

Course Code: 20IMG23GH4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the conceptual and practical aspects of industrial relation at the micro and macro levels.
CO2: investigate solutions to industrial relation problems based on research and assessment of current practices.
CO3: understand IR institutions such as employers' associations, trade unions and industrial tribunals.
CO4: critically discuss, analyze and evaluate the current and emerging industrial relations and trends.

UNIT-I

Industrial relations-concepts, evolution, significance, perspectives and organization; Anatomy of industrial relations; industrial relations and the state; Trade unions :concept, significance, types, approaches and objectives, Problems of trade unions in India and recommendations of national commission on labour for strengthening of trade unions.

UNIT-II

Collective bargaining: concept, importance and process of bargaining; participative management: Forms of workers' participative management in India; tripartite and bipartite bodies; standing orders and grievance procedure; code of discipline.

UNIT-III

Trade union act-1948, Industrial Disputes Act-1947, Industrial disputes: conciliation, arbitration, adjudication, Payment of wages act-1936, Minimum wages act-1948.

UNIT-IV

Modern and international scenario of industrial relations: Industrial relations and technological change; Industrial relations and HRD; ILO and industrial relations; legal framework of Industrial relations; industrial relations systems in India, UK, USA and Japan.

Recommended Readings:

1. PRN Sinha and I.B Sinha, Industrial Relations, Trade Union and Labor Legislation, Pearson Education.
2. Bhattacharya Dipak Kumar, "Human Resource planning", Excel Books.
3. Srivastava, M.P. "Human Resource Planning: Approaches, Needs, Assessment and Priorities in Manpower Planning", Manak Publications, Pvt. Limited, New Delhi.
4. Belcourt, Monica & J. McBey, Kenneth "Strategic Human Resource Planning", Cengage Learning India.
5. Srivastava, M.P. "Human Resource Planning", Institute of Applied Manpower Research, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Strategic Human Resource Management

Course Code: 20IMG23GH5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand strategic role performed by HR in business organization
CO2: understand the tools and techniques essential as a strategic contribution of HRM to organization growth.
CO3: explore the relationship between management of people and pursuit of an organization's strategic goals and objectives
CO4: understand the alignment of among different HR system and practices and organization outcomes

UNIT-I

Strategic HRM: introduction, components, objectives and evolution of SHRM, difference between traditional HRM and SHRM, Investment perspective of human resource management, challenges in SHRM, barriers to Strategic HR, SHRM approaches: The Indian Context.

UNIT-II

Human Resource Evaluation: concept, approaches, rationale for HR evaluation, linkage between HRM and firm performance, best practices and bundles approach, distinctive HR practices, HR outsourcing and off shoring, human resource planning: an overview, significance, perspectives and objectives of HRP, business strategy and HRP, process of HRP.

UNIT-III

HR systems: staffing systems, reward and compensation systems, employee and career development systems, performance management systems

UNIT-IV

Strategic options: downsizing and restructuring, outsourcing and off shoring, other HR practices/decisions

Recommended Readings:

1. Ekta Sharma, " Strategic Human Resource Management and Development, Pearson Education
2. Jeffrey A. Mello, "Strategic Human Resources Management", Cengage Learning
3. Tanuja Agarwala . "Strategic Human Resources Management", Oxford University Press.
4. Freed R.David, "Strategic Management", Pearson Education.
5. Robert L. Mathis and John H. Jackson. "Human Resource Management", Thomson South Western.
6. K. Prasad, "Strategic Human Resource Management - Text and Cases", MacMillan India Ltd.
7. Charles R.Greer, "Strategic Human Resource Management", Pearson Education
8. Srinivas R.Kandula, "Strategic Human Resource Development", PHI
9. Sharma, Anuradha. "Strategic Human Resource Management: An Indian perspective", Sage Response Books.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Indian Financial System and Financial Markets

Course Code: 20IMG23GF1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the working of financial institutions and markets both individually and as an interlinked system.
CO2: understand the factors affecting interest rates and yield curve and the importance of change in interest rates for all constituents of the financial system
CO3: understand the organization, role, functioning and need for regulation of different types of financial markets and the implications of the same on society.
CO4: critically analyze the pivotal role of banking in a financial system and the reasons for it being among the most tightly regulated industries in the world.
CO5: understand the impediments to financial inclusion and critically evaluate different ways of developing sustainable financial inclusion. Also critically analyze the working of the micro finance industry.

UNIT-I

Financial System- Meanings, components and functions; reforms in Indian Financial System; Money Market and its segments.

UNIT-II

Capital Market- New issue market; Stock Exchange and its functions; trading in stock exchange; NSE; OTCEI; depositories and custodians; Role and Functions of SEBI; New Financial Instruments.

UNIT-III

Commercial Banks; RRBs; Development Banks; NBFCS; EXIM Bank, RBI.

UNIT-IV

LICI; UTI; SIDBI; NABARD; Micro Finance; Financial Inclusion;

Recommended Readings:

1. Suresh, P. and Paul. J., Management of Banking and Financial Services, Pearson Education
2. Khan, M.Y. Indian Financial System, Tata McGraw Hill
3. Clifford, G., Financial Markets, Institutions and Financial Services, PHI.
4. Khan, M.Y. Management of Financial Services, McGraw-Hill.
5. Gordan, E and K. Natrajan, Emerging Scenario of Financial Services. Himalaya Publishing House.
6. Khan, M.Y., Financial Institutions and Market, McGraw Hill.
7. Bhole, L.M., Financial Institutions and Market, McGraw Hill.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Project Management

Course Code: 20IMG23GF2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: identify various investment opportunities and their evaluation
CO2: analytically approach to study the feasibility study of investment decisions
CO3: distinguish the key risks and to know means of finance
CO4: control and review the human aspects of the project

UNIT-I

Capital Investment- need, types, phases of capital budgeting, Generation and Screening of Project Ideas- corporate appraisal, monitoring the environment and identifying investment opportunities, scouting the project ideas and project rating, Market and Demand Analysis, Technical Analysis.

UNIT-II

Financial Estimates and Investment Appraisal Criteria- Estimation of investment, revenue and production cost, working capital requirement, Evaluation techniques of capital investment decisions.

UNIT-III

Project Risk Analysis- types of Risk, Risk adjusted discount rate method, certainty equivalent coefficient method, sensitivity analysis, decision tree analysis. Weighted average cost of capital (WACC) and its relevance in financial decision making, financing of projects, Project Appraisal by Financial institutions.

UNIT-IV

Social Cost Benefit Analysis (SCBA): Rationale for SCBA, UNIDO Approach. Project Management and Review: Forms of project Organization, project planning and control, human aspect of project management, pre-requisite for successful project implementation.

Recommended Readings:

1. Chandra, Prasanna. "Project Planning: Analysis, Selection, Implementation and Review" TMH.
2. Pradeep Pai, Project Management, Pearson Education.
3. Khatua: Project Management and Appraisal, Oxford University Press.
4. Nicholas, "Project Management for Business and Technology: Principles and Practice", Pearson
5. Ghattas, R.G. and McKee, S.L., "Practical Project Management", Pearson Education Asia
6. Pinto, P.K., "Project Management", Pearson Education.
7. K Nagarajan, "Project Management", New Age International Publishers.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50words normally. **Section B** shall comprise 8questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Business Taxation

Course Code: 20IMG23GF3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand rules and regulations of Income Tax Act
CO2: understand computation of Taxable Income under different heads
CO3: understand computation of Tax Liabilities and Tax Planning issues
CO4: identify structure and rates of GST

UNIT-I
Basic Concepts of Income Tax, Residential status and tax incidence, Incomes exempt from tax, Computation of Income under the head Salary and House Property.

UNIT-II
Computation of Income under the head Business and Profession, Capital Gains, Income from Other Sources, Clubbing of income, Set off and Carry forward of Losses.

UNIT-III
General Deductions, Assessment of Individual and Company, Provision with regard to TDS and advance tax, Basic understanding of tax planning and its distinction from tax avoidance and tax evasion.

UNIT-IV
GST: Rationale for GST; features of GST law in India, structure of GST (SGST, CGST, UTGST and IGST); rates of GST, models of GST, GST Council.

Recommended Readings:

1. Singhania, V., K. and Singhania, Monica, Students' Guide to Income Tax, Taxmann
2. Singhania, V., K. and Singhania, Kapil, Direct Taxes Law and practice, Taxmann
3. Singhania, V., K. and Singhania, Monica, Corporate Tax Planning & Business Tax Procedures, Taxmann
4. Narwal, K.,P., and Anushuya, GST in India, DBH Publishers and Distributers
5. Ahuja, G. and Gupta, R., Simplified Approach to Corporate Tax Planning and Management, Bharat Law House Private Limited
6. Srinivas, E. A., Handbook of Corporate Tax Planning, Tata McGraw Hill.
7. Iyengar, A. and C. Sampat, Law of Income Tax, Bharat House.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Investment Management

Course Code: 20IMG23GF4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the environment of investment and risk return framework.
CO2: analyse bonds in terms of valuation, yields and risks as well as build up immunized bond portfolio.
CO3: analyse equity shares using different approaches and models.
CO4: construct, analyse, select and evaluate portfolios along with a deep understanding of Capital market theory and associated models.
CO5: understand and analyse futures and options, use various options trading strategies and critically examine various innovations in derivatives market.

UNIT-I

Investment- Concept, objectives and process of investment management, financial and non-financial forms of investment, various investment avenues, sources of investment information, financial market and Investment Instruments, services of intermediaries in investment management, regulatory framework in financial market.

UNIT-II

Analysis of risk & return, concept of total risk, factors contributing to total risk, systematic and unsystematic risk, default risk, interest rate risk, market risk, management risk, purchasing power risk. Valuation of debt instruments- methods of valuation, risk management in debt market. Valuation of equity- methods of valuation including CAPM and their relevance.

UNIT-III

Fundamental analysis: concept & significance of economic analysis, industry analysis: introduction, need for industry analysis, alternative classification of industry, industry life cycle analysis, economic factors & industry analysis, Company analysis - nature and style of management, key role of financial analysis, ratio analysis. Technical Analysis: line chart, bar chart, points and figures chart, candlestick chart, reversal patterns, continuation patterns, Dow Theory, Elliott wave theory.

UNIT-IV

Portfolio theory- Efficient Market hypothesis (EMH), Random walk theory, Markowitz diversification model, Sharpe single index model, Arbitrage pricing theory. Portfolio building process, tools used by value investors, Portfolio performance evaluation- Sharpe's and Treynor's portfolio performance evaluation, Portfolio revision- Active and passive strategies & formula plans in portfolio revision.

Recommended Readings:

1. Chandra, Prasanna. "Investment Analysis and Portfolio Management", MH
2. Alexander, Sharpe, & Bailley, "Fundamentals of Investment", PHI, New Delhi
3. Bhalla, V K, "Investment Management: Security Analysis and Portfolio Management", Sultan Chand, New Delhi.
4. Reilley & Brown, "Investment Analysis & Portfolio Management", Thomson Learning
5. Fuller, Russell J & Farrell, James L. "Modern Investment & Security Analysis". McGraw Hill, New York.
6. Alexander, Jordan J & Bailey, Jeffrey V. "Investment Analysis & Portfolio Management", Dryden Press, Thomson Learning, Bombay.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Bank Management

Course Code: 20IMG23GF5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After doing this course, students should be able to:

CO1: understand the evolution and current state of the Indian banking industry.
CO2: understand the different services and products offered by banks and the challenges associated with them.
CO3: understand the regulatory structure within which the banking system operates.
CO4: understand and analyse the different risks faced by banks and the risk management mechanism.

UNIT-I
Banking System in India- meaning, functions, and classification of banks, services of bank, reserve requirements, innovative products in banking, bancassurance; Sources of Bank Funds- classification of deposits, performance analysis of banks, CAMELS- an integrated scorecard for banks.

UNIT-II
Uses of Funds- features of bank credit, types of credit, commercial credit and retail credits, principles of lending; Priority sector lending, Risk measurement and management in banks, Asset- liability management in banks, basel guidelines, Banking technology

UNIT-III
Meaning, scope, functions, objectives, structure and role of treasury management. Functions and responsibilities of a treasurer; Role and responsibilities of chief finance officer, tools of treasury management.

UNIT-IV
Integrated treasury, planning and control; Liquidity management- CRR/CCIL/RTGS; Supervision and Control of Treasury Operations; Present Status of Treasury Management in India; Role of Information Technology in Treasury Management.

Recommended Readings-

1. Varshney, P.N, Banking Law and Practice, Sultan Chand and Sons.
2. K.C. Shekhar, Lekshmy Shekhar, Banking Theory and Practice, Vikas Publications.
3. Indian Institute of Banking and Finance, Principles of Banking, Macmillan.
4. Avadhani, V.A. Treasury Management in India, Himalaya Publishing House.
5. Steven M. Bragg, Treasury Management: The Practitioner's Guide.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

E-Commerce and Applications

Course Code: 20IMG23GT1

L-T-P
3-0-1

External Marks: 50
Sessional Marks: 50
Time Allowed: 3 Hours

Course Outcomes
After doing this course, students should be able to:

CO1: understand the concept of E-Commerce & describe the opportunities & challenges offered by E-Commerce
CO2: able to handle electronic payment technology and requirements for internet based payments
CO3: understand the categories of E-Commerce and understand the different applications of E-commerce
CO4: understand and identify security issues of E-Commerce
CO5: understand the concept of WEB Based Business understand the M-Commerce applications

UNIT- I
Technology and Infrastructure for E-Commerce: Framework of E-commerce; Network Infrastructure for E-Commerce – Market Forces Influencing I-way, Network Access Equipment, Public Policy Issues Shaping the I-way; EDI - Applications in Business, Legal, Security and Privacy Issues of EDI; Components of EDI Standards, ASC X12 and EDIFACT.

UNIT-II
E-Commerce and Retailing: Changing Retail Industry Dynamics, Mercantile Models from the Consumer's Perspective, Management Challenges in Online Retailing.
Intranets and Customer Asset Management: Basics of Customer Asset Management, Online Sales Force, Online Customer Service and Support, Technology and Marketing Strategy.

UNIT-III
Intranets and Manufacturing: Integrated Logistics, Agile Manufacturing, Emerging Business Requirements, Manufacturing Information Systems, Intranet-based Manufacturing, and Logistics Management. E-Commerce and Online Publishing: Why Online Publishing, Online Publishing approaches, Advertising and Online Publishing. E-Commerce and Banking: Changing Dynamics in the Banking Industry, Home Banking Implementation Approaches, and Management Issues in Online Banking.

UNIT-IV
Intranets and Corporate Finance: An Introduction, Financial Systems, Financial Intranets, Software Modules in Financial Information Systems, Human Resource Management Systems, Size/Structure of Financial Software Market.

Lab: Each student is required to develop at least one application of e-commerce.

Recommended Readings:

1. Kalakota and Whinston, Electronic Commerce: A Manager's Guide, Pearson Education.
2. Greenstien and Vasarhelyi, Electronic Commerce: Security, Risk Management and Control, Tata McGraw Hill.
3. Dave Chaffey, E-Business and E- Commerce Management, Strategy, Implementation and Practice, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Data Warehousing and Data Mining

Course Code: 20IMG23GT2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After doing this course, students should be able to:

CO1 identify the scope and necessity of Data Mining and Warehousing for the society.
CO2 describe the designing of Data Warehouse so that it can be able to solve the root problems.
CO3 understand various tools of Data Mining and their techniques to solve the real time problems.
CO4 develop further interest in research and design of new Data Mining techniques.

UNIT-I

Introduction: The Evolution of Data Warehousing the Data Warehouse A Brief History, Today's Development Environment; Principles of Data; Warehousing (Architecture and Design Techniques): Types of Data and their uses conceptual Data, Architecture, Design Techniques, Introduction to the Logical Architecture; Creating the Data Asset: Business Data Warehouse Design, Populating the Data Warehouse, Unlocking the Data Asset for End Users (The Use of Business Information).

UNIT-II

Designing Business Information Warehouse; Populating Business Information Warehouse, User Access to Information, Information, Data in Context. Data Mining Introduction: Motivation, Importance, data mining, kind of data, Functionalities, Interesting Patterns, Classification of data mining systems, Major issues; Data Warehouse and OLAP Technology for Data Mining: Data warehouse, operational database systems and data warehouses, Architecture, Implementation, development of data cube technology, data warehousing to data mining, Data warehouse usage.

UNIT-III

Data Preparation: Preprocess, Data cleaning, Data integration and transformation, Data reduction, Discrete and concept hierarchy generation; Data Mining Primitives: Languages, and System Architecture, graphical user interfaces; Concept Description: Characterization and Comparison, Data generalization and summarization based characterization, Analytical characterization: analysis of attribute relevance, mining class comparisons, Mining descriptive statistical measures in large database.

UNIT-IV

Mining Association Rules in Large Database: Mining single dimensional Boolean association rules from transaction database, Mining multidimensional association rules from database and data warehouses, from associating mining to correlation analysis, Constraint based association mining; Classification and Prediction: Issues, classification by decision tree induction, Bayesian classification, Classification by back propagation; Classification based on concepts from association rule mining; Other classification methods.
Lab: Each student is required to develop at least one data-house.

Recommended Readings:

1 Sam Anahory, Data Warehousing in the Real World, Pearson Education
2 Margaret H. Dunham, Data Mining: Introductory and Advance Topics, Pearson Education.
3. Alex Berson, Stephen Smith, Kurt Threarling; Building Data Mining Applications for CRM TMH
4. Alex Berson, Stephen Smith; Data Warehousing, Data Mining and OLAP, TMH
5. Michael J.A. Berry, Data Mining Techniques: for marketing sales and Customer Support, Gordon Linoff.
6. Han, Jiawei ; Data mining: Concepts and techniques, Harcourt.
7. Pujari, Arun K, Data, Mining Techniques, Hyderabad University Press.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

E-Governance and Framework of ICT

Course Code: 20IMG23GT3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After doing this course, students should be able to:

CO1: Understand the basic functioning of e-government
CO2: Apply the technical and management skills in implementing e-governance projects.
CO3: Analyse and evaluate assessment framework of e-government projects

UNIT-I

Overview of E-Government and E-Governance: Stages of E-Governance, National E-Governance Plan(NeGP), Mission Mode Projects and their implementation status, E-Governance Introduction to E-governance, Role of ICT in e-governance, Need, importance of E-governance, Categories of E-governance, Key Issues of E-Governance, Technology, Policies, Infrastructure, Training, Copyrights Consulting Funds, E-governance Models, Model of Digital Governance, Wider Dissemination Model.

UNIT-II

E governance Models: Critical Flow Model, Interactive-service model/Government to-Citizento- Government Model (G2C2G),Major areas of E-governance Services, Public Grievances: Telephone, Ration card, transportation, Rural services Land Records, Police: FIR registration, Lost and found, Social services: Death, domicile, school certificates, Public information: employment, hospitals, railway, Agricultural sector: Fertilizers, Seeds, Utility payments Electricity, water, telephone, Commercial: income tax, custom duty, excise duty-Governance Infrastructure.

UNIT-III

Phases of e-government: "Brochure ware", Interactive, and Transaction, Five Stages of Electronic Government Development, Statutes affecting e-government development, Human Infrastructural preparedness, Challenges for E-governance.

UNIT-IV

Policies: National Telecom Reforms, National Telecom Policies NTPs, Regulations: Digital Divide and Digital Dividends, Development and rationale of regulation and, deregulation, Role of Telecom Regulatory Agencies - Telecom Regulatory Authority of India (TRAI) and ITU, Information Technology Act (2000), Internet and E-commerce issues: privacy, security, domain names, etc, Wireless: frequency auctions, standards, competition.

Recommended Readings:

1. Vikram Raghavan, (2007). Communication Law in India-Legal Aspects of Telecom, Broadcasting, and Cable Services, 1st Edition, Lexis Nexis Butterworths.
2. D N Gupta, (2008). E Governance A Comprehensive Framework, 1st Edition, Jain Publications
3. Heather E Hudson, (2006). Global Connections - International Telecommunications Infrastructure and Policy, 1st Edition, Wiley Publication.
4. E. Bohlin and S.L. Levin, (2000). Telecommunications Transformation - Technology, Strategy and Policy, 1st Edition, IOS Press.
5. McElroy, (2003).KMCI (Knowledge Management Consortium International) and Butterworth Hienemann, 1st Edition.
6. R. K. Mitra, (2006). E-government: Macro Issues, 1st Edition, GIFT Publishing.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Multimedia and Web Development

Course Code: 20IMG23GT4

L-T-P
3-0-1

External Marks: 50
Sessional Marks: 50
Time Allowed: 3 Hours

Course Outcomes
After doing this course, students should be able to:

CO1: Developed understanding of technical aspect of Multimedia Systems.
CO2: Understand various file formats for audio, video and text media.
CO3: Design interactive multimedia software.
CO4: Apply various networking protocols for multimedia applications.
CO5: To evaluate multimedia application for its optimum performance.
CO6: Design a basic web site using HTML

UNIT-I
Introduction to Multimedia: Multimedia devices, components of multimedia systems, authoring tools, creating multimedia, video-capturing, video on demand.

UNIT-II
Data compression : Need for data compression, non-lossy and lossy compressions for images, color, gray scale and still-video image, video image, and audio compression JPEG standard, MPEG standard, DVI Technology, MIDI, brief survey of speech recognition and generation.

UNIT-III
Data and file format standards, Multimedia applications design: Application classes, types of multimedia systems; Distributed multimedia systems: Components, distributed multimedia databases.

UNIT-IV
Introduction to Web design: Web development process, site types and architectures, navigation theory and practice. Introduction to Page: Page sizes, page types, web design tools; introduction to text: Fonts and text layout, formatting tags, text design issues for the web.
HTML: Structure of HTML document; HTML Tags, inserting images, creating links, tables, forms, and frames

Lab: Each student is required to develop at least one website.

Recommended Readings:

1. Buford, Multimedia Systems, Pearson Education,
2. Vaughan, Multimedia Making IT Work, Tata McGraw Hill,
3. Villamil and Molina, Multimedia: An Introduction, PHI
4. Shuman, Multimedia in Action, Vikas Publishing House
5. Senclair, Multimedia on the PC, BPB Publications
6. Rosch, Multimedia Bible, SAMS Publishing
7. Powell, Web Design: The Complete Reference, Tata McGraw Hill

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Enterprise Resource Planning

Course Code: 20IMG23GT5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing this course, student will be able to:

CO1: make basic use of Enterprise software, and its role in integrating business functions
CO2: analyse the strategic options for ERP identification and adoption.
CO3: design the ERP implementation strategies.
CO4: create reengineered business processes for successful ERP implementation.

UNIT-I

Introduction: Basic issues, evolution of ERP, advantages, pitfalls, overview of an enterprise; ERP and related technologies: Business process reengineering, management information system, decision support system, executive information system, data warehousing, data mining, supply chain management.

UNIT-II

Manufacturing perspective: CAD/CAM, material requirement planning (MRP-I), bill of material, manufacturing resource planning (MRP-II), distribution requirement planning, JIT approach.

UNIT-III

ERP Modules: Introduction to ERP modules n Finance, Plant maintenance, quality management, materials management.

UNIT-IV

ERP Implementation: ERP lifecycle, vendors, consultants and users, ERP market, future directions in ERP.

Recommended Readings:

1. Leon A., Enterprise Resource Planning, Tata McGraw Hill.
2. Veena Bansal, Enterprise Resource Planning, Pearson Education
3. Ellen Monk, Bret Wagner, Concepts in Enterprise Resource Planning, Cengage Learning.
4. Motiwalla, Thompson, Enterprise Systems for Management, Pearson Education.
5. Wallace and Kremzar, ERP: Making it Happen – The Implementers' Guide to Success
6. with Enterprise Resource Planning, John Wiley and Sons, Inc.
7. Sadagopan, S., ERP: A Managerial perspective. Tata McGraw Hill.
8. Garg, V. K. and Venket Krishna N. K., ERP Concepts and Practice, PHI Publication.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Foreign Exchange Management

Course Code: 20IMG23GI1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand why firms and nations seek out and benefit from international business activities.
CO2: analyze and identify factors that cause exchange rates to change.
CO3: identify the linkages between international financial prices.
CO4: understand the costs and benefits of different monetary systems.
CO5: identify and measure political risk associated with a sovereign nation.

UNIT -I
Nature of foreign exchange: sources of demand for and supply of foreign exchange-the balance of payments (bop) framework; nominal, real and effective exchange rates; determination of rate of exchange, monetary portfolio balance, purchasing power parity approaches; overvalued and undervalued currencies; exchange rate systems.

UNIT -II
General factors of exchange rate fluctuations; the Dornbusch Sticky -price theory of exchange rate volatility; exchange rate overshooting and the J-curve effect; central banking intervention for exchange rate stability; effect of depreciation on trade balance.

UNIT -III
Nature functions and participants of foreign exchange market; spot and forward markets; forward premium; forwards in hedging and arbitrage; methods of quoting exchange rates; cross rates of exchange; arbitrage operations; bid -ask spreads; the Interest Rate Parity Theorem; the Expectation Theory; International Fisher Effect.

UNIT -IV
Currency futures, options and determination of their market value, over-the-counter options; Fisher Black's Optional-Pricing model; currency and interest rate swaps; credit risk of swaps, Euro currency market and its instruments; measuring foreign exchange risk and exposure; basic techniques of exposure management; foreign exchange regulation in India.

Recommended Readings:

1. Giddy I.A.N., Global Financial Markets, AITBS, New Delhi
2. D. Levi Maurice, International Finance, Prentice Hall of India, New Delhi
3. David K. Eiteman, Multinational Business Finance, Pearson Education
4. Roth Paul, Mastering Foreign Exchange and Money Markets, Pitman, London
5. Apte P.G., International Financial Management, Tata McGraw Hill, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

International Business Environment

Course Code: 20IMG23GI2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: learn the nature, scope and structure of International Business.
CO2: understand the influence of various environmental factors on international business operations.
CO3: gain knowledge on Regional Economic Groups

UNIT-I

Introduction to International Business: Importance, nature and scope of International business; Modes of entry into International Business; Internationalization process and managerial implications.
Socio-Cultural environment: significance, religion, language, education, aesthetics, attitudes, culture, customs and practices, cross cultural literacy, managing cultural diversity- dealing with cultural differences, social responsibility of business.

UNIT-II

International Economic Environment: International economic analysis indicators; Economic factors affecting international business operations- economic freedom, economic systems, economic indicators; Assessing economic development, performance and potential; Regional economic integration: Effects of integration, major regional trading groups in Asia and America. International Investment Theory - Theory of capital movements, Market imperfections, Internationalization, Appropriability, Location specific advantage.

UNIT-III

Political and Legal environment: Political environment: Individualism Vs. collectivism, political ideology, political risk; Legal environment: Types of Legal systems, trends in legal system, implications for mangers, legal issues in international business.

UNIT-IV

Technological environment: Impact of technology on society, economy, industry; Need to spend on R and D, implication of technology on MNCs, environmental factors contributing for rise of technology, Nature of technology transfer, stages in transfer process, international technological issues.

Recommended Readings:

1. Daniels, J.D. and H. LEE Radesbaugh,"International Business", Pearson Education.
2. Aswathappa, K. "International Business", Tata McGraw Hill publications, New Delhi.
3. Richard M. Schaffer etal, International Business Law and its Environment, Thomson 2002.
4. John. J Wild, et al, International Business, Pearson Education
5. Michael Zinkata et al, Global Business, The Dryden Press 1988.
6. Darrell Mahoney, International Business, Longman, 1998.
7. Donn Ball and Wendell Mcculloch, International Business, Irwin McGraw Hill 1999.
8. Charles W Hill, International Business, TMH publishing company Ltd.
9. WTO Annual reports, Geneva.
10. Overview of Developments in the International Trading Environments - Annual Report by the Director General WTO, Nov. 22, 2000.
11. Black and Sundaram, "International Business Environment", Prentice Hall of India, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Export Import Management and Documentation

Course Code: 20IMG23GI3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: understand Import/export trade organizations
CO2: understand the procedure of licensing
CO3: understand Export-Import trade regulatory framework in India.
CO4: understand export sales contract and its processing
CO5: understand documents required at the time of export and import.
CO6: understand institutional set up for export promotion and export assistance in India.

UNIT-I

Preliminaries for Export: Meaning of Exports and Imports, Classification of Exports and Imports, Categories of Exporters Strategy and Preparation for Foreign Trade, Identifying Foreign Markets, International Market Selection Process, Methods of Entering International Market, Constraints in Entering Foreign Markets, Export Contract, Force Majeure in Export Contract Exchange Earner's Foreign Currency (EEFC) Account, Prospects for India's Foreign Trade Development, Challenges to India's Foreign Trade Development, Institutional framework for Foreign Trade.

UNIT-II

Export documentation and Export Procedures: Aligned Documentation System (ADS), important documents, Export Procedure, Registration Procedure, Pre-shipment Procedure, Shipment Procedure ,Post- shipment Procedure (Realisation of Export Proceeds),Excise Clearance for Exportable Goods ,Quality Control and Pre-shipment Inspection, Importer Exporter Code (IEC) Number Registration-cum-Membership Certificate (RCMC), Role of Customs House Agents (CHAs), Exchange Rate Fluctuation Risks, Forward Contracts, ISO 9000 Certification, Role of clearing and forwarding agents

UNIT-III

Policy Assistance and Incentives: Incentives and Assistance for Exporters ,Duty Drawback (DBK) Procedure for Claiming Duty Drawback, Exports from India Scheme, Export Promotion Capital Goods (EPCG) Scheme, Towns of Export Excellence (TEE), Deemed Exports, Export Oriented UNIT-s (EOUs), Electronic Hardware Technology Parks (EHTPs), Software Technology Parks (STPs) and Bio-technology Parks, Agri Export Zones (AEZs), Special Economic Zones (SEZs),Benefits Enjoyed by SEZs, Quality Control and Trade Disputes (QCTD) Assistance to States for Developing Export Infrastructure and Allied Activities (ASIDE), Role and Significance of Export Trading Houses and privileges of status holder.

UNIT-IV

Methods of Payments and Export Finance: Conditions for Realisation of Export Proceeds, Factors Affecting Export Payment Term, Methods of Export Payment, Types of Export Finance, Pre-shipment Finance, Features of Post-shipment Finance, Procedure for Obtaining Export Finance, Pre-shipment Finance vs. Post-shipment Finance, Import Procedure Introduction, Categories of Importers, Import Licence, Import Contract, Pre-import Procedure, Legal Dimensions of Import Procedure, Customs Clearance for Imported Goods, Exchange Control Provisions for Imports, Valuation for Customs Duty, Import Incentives under Special Schemes, Import Procurement planning.

Recommended Readings:

1. Jain. S. Khushpat, Jain.V. Apexa, Export-Import Procedure and Documentation, Himalaya Pub. House.
2. Export-Import manual, Nabhi Publication, New Delhi
3. Kapoor,D.C, "Export Management", Vikas Publishing House Pvt. Ltd., New Delhi.
4. Gerald Albaum, International Marketing and Export Management, Pearson Education.
5. Cherunilam, Francis. "International Trade and Export Management", Himalaya Pub. House.
6. Kumar, Asin, "Export -Import Management", Excel Publications. New Delhi
7. Paras Ram, "Export what, where and how" Anupam Publications.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Regional Economic Blocks

Course Code: 20IMG23GI4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: understand the theoretical framework of the theory of economic integration, and
CO2: understand its impact on trade and investment flows among the region and on the global economy.

UNIT-I

Concept, Rationale and objectives of Economic Integration, Levels of economic integration, Impact of Economic Integration, Customs Union: Features, Theory of Customs Union, Partial Equilibrium approach to Customs Union, Assumptions of approach, Effects of Customs Union. General Equilibrium Approach: Lipsey model and Vanek model.

UNIT-II

Regionalism in the World Economy, Economic Integration among developing countries: Rationale, benefits, problems of economic integration, measures to encourage EI among developing countries, Evaluation of RIA's.

UNIT-III

South - South Cooperation: Problems facing the south, Scope of ECDC (Economic cooperation among developing countries), Rationale, SSC (South- South Cooperation): Efforts, progress, problems, India's role in SSC. India and Regional Cooperation, SAARC: Objectives and principles, SAARC nations, potential areas of Cooperation, problems of SAARC nations, SAPTA, INDO - LANKA FTA, INDO - SINGAPORE CECA (Comprehensive Economic Cooperation Agreement).

UNIT-IV

Major Regional Trading Groups: EU; NAFTA; REI in America's: CARICOM, MERCOSUR, CAN; Regional economic integration in ASIA - ASEAN, APEC; Regional economic integration in AFRICA: African Union; BRICS. Commodity agreements and OPEC nations. Role of WTO, WTO provisions on regional integration arrangements.

Recommended Readings:

1. Paul R. Krugman, International Economics, Pearson Education.
2. Jhingan, M.L, International Economics, Vrinda Publications Ltd.
3. Gerber James, International Economics, Pearson Education.
4. Cherunilum, Francis, International Economics, Tata McGraw - Hill
5. Balassa, Bela., Theory of Economic Integration, George Allen and Unwin Ltd.
6. Daniels, J.D. and H. LEE Radesbaugh,"International Business", Pearson Education.
7. Bhalla, V.K., World Economy in 90s: A Portfolio Approach, Anmol Pub. Pvt. Ltd.
8. Dreze, Jean and Sen, Aamrtya, Indian, Development: Selected Regional Perspective, Oxford Univ. Press
9. Jackson, J., The World Trading System, Mass: MIT Press.
10. Krugman, Paul R. and Obstfeld, M., International Economics, Harper Collins Pub.
11. Machlup, F. A., History of Thought on Economic Integration, Macmillan.
12. Trivedi, Sonu, Regional Economic Cooperation and Integration, New Century Publications.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

International Logistics

Course Code: 20IMG23GI5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: develop basic understanding of the ins and outs of exports and imports, types of shipping, international laws related to logistics and transportation of goods, financial processing, and distribution channels.
CO2: learn discussion of terms of trade, insurance, proper packaging procedures and outcomes.
CO3: discuss current practices, issues, and concerns in the field of international logistic operations.
CO4: understand the reason of existence of International Trade.
CO5: apply logistics principles in international business decisions.

UNIT -I
Trends in world trade growth; nature, significance and components of international logistics; creating an export organization; registration and licensing; selecting export products and markets and channels; export costing and pricing procedures incoterms; deciding payment terms; export contracts; deciding currency of payment; export order processing; international logistics infrastructure.

UNIT -II
Arranging pre -shipment finance; export procurement; quality control and pre -shipment inspection; packing and labeling of export consignments; basic procedure and documentation for excise and custom clearance; ADS; Cargo insurance; shipping modes procedures and documentation; role of forwarding agents.

UNIT -III
Arranging post-shipment finance; documentary collection of export bills; UCPDC guidelines; negotiating documents under L/C; managing exchange earners' foreign currency accounts; availing foreign exchange facilities; protecting against adverse movements in exchange rates; role of EXIM Bank; major provisions of FEMA relating to exporters; export credit risk insurance and the role of ECGC.

UNIT -IV
Major export promotion schemes in India; export assistance to export houses; SEZ units, EOUs, EHTP, STP and BTP units; facilities for deemed exports; marketing development assistance; trade information support; role of commodity boards and export promotion councils in trade promotion; facilities for service exports.

Recommended Readings:

1. Paras Ram, Export: What, When, How, Anupam Publications, New Delhi
2. Khurana, P.K., Export Management, Galgotia Publishing, New Delhi
3. Shavaramu, Export Marketing – A Practical Guide for Exporters, Wheeler Publishing, New Delhi
4. Paul R. Murphy, Contemporary Logistics, Pearson Education
5. Govt. of India, An Overview of Customs, Commissionate of Customs and ICDs, New Delhi
6. Govt. of India, Ministry of Commerce and Industry – Handbook of Procedure, Govt. of India, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Digital Marketing

Course Code: 20IMG23GM1

L-T-P
3-0-1

External Marks: 50
Sessional Marks: 50
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: Understand how and why to use digital marketing for multiple goals within a larger marketing and/or media strategy.
CO2: Understand the major digital marketing channels - online advertising: Digital display, video, mobile, search engine, and social media.
CO3: Learn to develop, evaluate, and execute a comprehensive digital marketing strategy and plan.
CO4: Learn how to measure digital marketing efforts and calculate ROI. CO5 Explore the latest digital ad technologies.

UNIT-I

Introduction to Digital Marketing: Digital Marketing, Internet Users, Digital Marketing Strategy, Digital Advertising Market in India, Skills required in Digital Marketing, Digital Marketing Plan. Display Advertising: Concept of Display Advertising, Types of Display Ads, Buying Models, Display Plan, Targeting, What Makes a Good Ad?, Programmatic Digital Advertising, Analytical Tools, YouTube Advertising.

UNIT-II

Search Engine Advertising: benefits of paid Search Advertising, understanding Ad Placement, understanding Ad Ranks, Creating the First Ad Campaign, Enhance Your Ad Campaign, Performance Reports. Social Media Marketing: How to build a Successful Strategy. Facebook Marketing: Facebook for Business, Anatomy of an Ad Campaign, Adverts, Facebook Insights, Other Marketing Tools, Other Essentials.

UNIT-III

LinkedIn Marketing: Why it is Important to have LinkedIn Presence, LinkedIn Strategy, Sales Leads Generation Using LinkedIn, Content Strategy, LinkedIn Analytics, Targeting, Ad Campaign. Twitter Marketing: Getting Started with Twitter, How is Twitter Different?, Building a Content Strategy, Twitter Usage, Twitter Ads, Twitter Analytics, Twitter tools and tips for Marketers. Instagram and Snapchat: Instagram-Content Strategy, Sponsored Ads, Snapchat, Digital Public Relations.

UNIT-IV

Mobile Marketing: Mobile Usage, Mobile Advertising, Mobile Marketing Toolkit, Mobile Marketing Features, Addressing the diversity in India through Mobile, Campaign Development Process, Tracking of Mobile Campaigns. Search Engine Optimisation: Search Engine, Concept of SEO, SEO phases, On Page and Off Page Optimisation, Social Media Reach, Maintenance. Web Analytics: Data Collection, Key Metrics, Making Web Analytics Actionable, Multi-channel attribution, How to connect offline with online, Types of Tracking Codes, Mobile Analytics, Universal Analytics, Competitive Intelligence.

Recommended Readings:

1. Puneet Bhatia, Fundamental of Digital Marketing, Pearson Education
2. Seema Gupta, "Digital Marketing", McGraw Hill Education, New Delhi.
3. Philip Kotler, "Marketing 4.0: Moving from Traditional to Digital", Wiley
4. Ryan Deiss and Russ Henne berry. Digital Marketing for Dummies,
5. Jason, McDonald. Social Media Marketing Workbook: 2018 Edition - How to Use Social Media for Business
6. Miller, The Ultimate Web Marketing Guide, Pearson Education.

Lab: Practical on Social Media marketing

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Customer Relationship Management

Course Code: 20IMG23GM2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: apply the concept of CRM, the benefits delivered by CRM, the contexts in which it is used, the technologies that are deployed and how it can be implemented.

CO2: implement how CRM practices and technologies enhance the achievement of marketing, sales and service objectives throughout the customer life-cycle stages of customer acquisition, retention and development whilst simultaneously supporting broader organizational goals.

UNIT-I

Introduction – Origin, evolution and concept of CRM, strategic importance of CRM, goals of CRM, types of CRM, CRM Architecture

UNIT-II

Operational CRM – Sales force automation: lead management, contact management, field force automation; enterprise marketing automation: market segmentation, campaign management, customer service and support, contact and call center operations

UNIT-III

Analytical CRM – Managing and sharing customer data: customer information database, ethics and legalities of data use, data warehousing and data mining; types of data analysis – online analytical processing, click stream analysis, collaborative filtering, CRM and business intelligence collaborative CRM

UNIT-IV

CRM Implementation – Establishing CRM performance monitoring, CRM readiness assessment, system, CRM audit, CRM project management, employee engagement in CRM project, CRM budget, key account management, evaluating CRM return on investment

Recommended Readings:

1. Buttle, Francis, Customer Relationship Management – Concept and Tools, Elsevier Butterworth – Heinemann, Oxford, UK
2. Payne, Adrian, Handbook of CRM – Achieving Excellence in Customer Management, Butterworth – Heinemann, Oxford, UK
3. Dyche, Jill, The CRM Handbook – A Business Guide to Customer Relationship Management, Pearson Education, New Delhi
4. Knox, Simon, Stan Maklan, Adrian Payne, Joe Peppard and Lynette Ryal, Customer Relationship Management, Butterworth – Heinemann, Oxford, UK
5. Greenlers, Paul, CRM at the Speed of Light, Tata McGraw Hill Publishing Ltd., New Delhi
6. Anderson, Kristen, and Carol J Kerr, Customer Relationship Management, Tata McGraw Hill

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Services Marketing

Course Code: 20IMG23GM3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the unique challenges inherent in managing and delivering quality services.
CO2: analyse the various components of the "services marketing mix" (the 7 P's).
CO3: to identify the role of employees and customers in service delivery, customer satisfaction, and service recovery;
CO4: develop students' abilities to identify services decision problems, ascertain alternatives, define crucial issues, analyse, make decisions and plan the implementation of these decisions

UNIT I

Introduction to Services: Service and Technology, Goods versus Services, Service Marketing Mix, Gap model of Services, important service industries-Hospitality and Tourism, Transportation, Telecom, Banking and Insurance, Education and Entertainment, Healthcare. Service classification and challenges in Service Business.

UNIT II

Focus on the Customer: Consumer Behaviour in Services, Customer Expectation of Services, and Customer perception of services. Elements in an effective services marketing research programme, Building customer relationship, Relationship development strategies, Reasons of Service failure, Service recovery and strategies.

UNIT III

Aligning Service design and standards: Challenges of Services Innovation and design, new service development process Service Blueprinting, Customer-defined service standards and its types, Physical evidence and types of servicescape, Strategic roles of servicescape

UNIT IV

Delivering and performing services: Employees role in service delivery, Customers role in service delivery, Delivering services through intermediaries and electronic channels, Strategies for matching capacity and demand, Key service communication challenges, Approaches to pricing services, Financial and Economic impact of services.

Recommended Readings:

1. Lovelock, C., Wirtz, J.and Chatterjee, J., Services Marketing. Pearson Education.
2. Zeithaml, V., Bitner, M.J., Gremler, D.D. and Pandit, A., Service Marketing. McGraw Hill.
3. Gopal Das, Essentials of Services Marketing, Pearson Education.
4. Srinivasan, Service marketing: Indian Context, PHI
5. Swartz, T., Iqcobucci, D., Handbook of Service Marketing and Management, Sage Publication

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Consumer Behavior

Course Code: 20IMG23GM4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: gain strategic understanding of the influential and persuasive mechanisms involved in consumer attitude, belief, and behavior change, and will be able to apply this knowledge in addressing specific marketing problems.
CO2: examine the consumer from a managerial perspective and to develop marketing strategies to respond to consumers' changing attitudes and behaviors.
CO3: understand how to anticipate, adapt, and respond to consumer needs by applying the insight from basic consumer behavior concepts to their marketing strategies.
CO4: understand the current and future research technologies for consumer insight and will be able to critically assess how they can be used in strategy formulation.

UNIT-I

Consumer Behavior and consumer research; importance of consumer Behavior; evolution of consumer Behavior; methods of studying consumer Behavior; customer centric organizations; market analysis; market segmentation, marketing mix strategies; value of brands in marketing strategy; customer loyalty and retention strategy; global marketing strategy; global marketing strategy; global advertising effectiveness; consumer decision process model; variables affecting the decision process; types of decision process; factors influencing the extent of problem solving; pre-purchase processes; need recognition; internal and external search; pre-purchase evaluation

UNIT-II

Different types of purchase situations; retailing and the purchase process; determinants of retail success or failure; point -of-purchase materials; consumer logistics; location based retailing; direct marketing consumption Behaviors; consumption experiences; importance of customer satisfaction; factors affecting satisfaction level; demographics and consumer Behavior; economic resources and consumer Behavior; personality and consumer Behavior; personal values; lifestyle motivational conflict and need priorities; motivational intensity; motivating consumer

UNIT-III

Importance of consumer knowledge; types of consumer knowledge; sources of consumer knowledge; benefits of understanding consumer knowledge; consumer beliefs; consumer feelings; consumer attitudes; consumer intentions; culture and its effect on consumer Behavior; changing values and its effect on consumer Behavior; changing values and its effect on marketing; determinants of social class; social class and consumer Behavior; importance of families and households on consumer Behavior; role Behavior and its influence on the decision process; family life cycles; changing roles of women; children and household consumer Behavior

UNIT-IV

Group and personal influences on individuals; reference group and its influence on individuals; transmission of influence through dyadic exchanges; word of mouth and opinion leaders in advertising and marketing strategy; diffusion of innovations; diffusion process; reaching the consumer; gaining consumer's attention; shaping consumer's opinion; opinions change; product's and advertising's role in shaping consumer opinion; cognitive learning; retrieval of information; company's role in helping consumers to remember

Recommended Readings:

1. Schiffman, Leon G. and S. Ramesh Kumar, Consumer Behavior; Pearson Education
2. Jagdish Sheth, Consumer Behavior: A Digital Native, Pearson Education.
3. Blackwell, Roger, Miniard, Paul and Engel, James; Consumer Behavior; Thomson Learning; New Delhi 4.Loudon, David J. and Dellabitta, Albert; Consumer Behavior; Tata McGraw Hill; New Delhi.
5. Soloman, Michael R.; Consumer Behavior – Buying, Having and Being; Pearson Education
6. Nair, Suja R.; Consumer Behavior in Indian Perspective; Himalaya Publishing House; New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Retail Management

Course Code: 20IMG23GM5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: understand the concepts of effective retailing
CO2: know the recent trends in retailing in India
CO3: understand various retail formats and will understand the retail customers

UNIT-I

Introduction to Retail- Evolution of Retail, Organised vs. Unorganised retailing, Retail Mix, theories of retail development, Types of Retailers; Careers in Retailing; understanding Consumers.

UNIT-II

Retail Locations- Planned and Unplanned, Retail Site Location- Site Characteristics, Trade Area Characteristics, Location and Site Evaluation; Store Layout and Design; Space Management; Visual Merchandising; Atmospherics.

UNIT-III

Managing Merchandise - Merchandise Planning, Process, Forecasting Sales, Developing Assortment Plans, National Brands and Private Labels; Retail Pricing- Setting Retail Prices, Price Adjustments, Pricing Strategies; Retail Communication Mix.

UNIT-IV

Information and Supply Chain Management- Information Flows, Logistics, Distribution Centre. Contemporary issues in Retail- Significance of retail as an industry, Retail scenario at International and National Level, Technology in Retailing, Multi-channel Retailing, E-Retailing: Future of e-retailing, Challenges for traditional retail and e-retail, FDI in Retail.

Recommended Readings:

1. Pradhan, S., Retailing Management Text and Cases, McGraw Hill Education, New Delhi
2. Berman, Barry and Evans, Joel, R., Retail Management; A Strategic Approach; Pearson Education.
3. Levy, Micheal, Weitz, Barton, A. & Pandit, Ajay, Retailing Management, Tata McGraw Hill, New Delhi
4. Gibson G. Vedamani, Retail Management, Pearson Education.
5. Newman, Andrew, J. and Cullen, Peter, Retailing: Environment and Operations, Vikas Publishing House; New Delhi.
6. Gilbert, David, Retail Marketing Management, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Project Management

Course Code: 20IMG23GO1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: explain the importance, scope and functions of project management in successful project and understand the life cycle of any given project

CO2: prepare estimation of guidelines for time, costs and resources required for project management by applying different methods

CO3: demonstrate the scheduling resources and reducing project duration

CO4: define role and responsibilities of the project manager, planning, organizing, controlling, skills of the project manager

UNIT-I

Project Analysis: Meaning, Overview, Capital Budgeting and Strategic Issues, Generation and Screening of Project Ideas.

UNIT-II

Feasibility Reports: Market and Demand Analysis; Technical Analysis; Financial Analysis; Analysis of Project Risk; Risk specific to individual firm and Market Risk; Decision under risk and Risk Analysis in Practice.

UNIT-III

Social Cost and Benefit Analysis: UNIDO approach and L-M Approach; Multiple Projects and Constraints, Financing of Projects, Sources of Risk capital, Recent development in India.

UNIT-IV

Project Management: Project Planning and Control, Human aspects of Project Management; Project Review and Administrative Aspects; Problem of Time and Cost Overrun.

Recommended Readings:

1. Chandra, Prasanna, Projects: Preparation, Appraisal, Budgeting and Implementation, Tata McGraw Hill.
2. Pradeep Pai, Project Management, Pearson Education.
3. Dhankar, Raj S., Financial Management of Public Sector Undertakings, Westville.
4. Little I.M.D. and J.A. Mirrlees, Project Appraisal and Planning for Developing Countries, Heinemann Educational Book.
5. OCED Manual of Industrial Project Analysis in Developing Countries- Methodology and Case Studies, OCED, Paris.
6. Planning Commission, Guidelines for Preparation of Feasibility reports of Industrial Projects, Controller of Publication.
7. UNIDO Guide to Practical Project Appraisal, United Nations.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Total Quality Management

Course Code: 20IMG23GO2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: conceptualize Total Quality.
CO2: closely link management of quality with that of reliability and maintainability for total product assurance.
CO3: describe the Concept of Total Quality and its evolution.

UNIT-I

Basics Concepts of Quality: Definition of Quality, Dimensions of Quality, Quality Planning, Quality costs - Analysis Techniques for Quality Costs, Basic concepts of Total Quality Management, Historical Review, Principles of TQM, Leadership - Concepts, Role of Senior Management, Quality Council, Quality Statements, Strategic Planning, Deming Philosophy, Barriers to TQM Implementation.

UNIT-II

TQM Principles: Customer satisfaction - Customer Perception of Quality, Customer Complaints, Service Quality, Customer Retention, Employee Involvement - Motivation, Empowerment, Teams, Recognition and Reward, Performance Appraisal, Benefits, Continuous Process Improvement - Juran Trilogy, PDCA Cycle, 5S, Kaizen, Supplier Partnership - Partnering, sourcing, Supplier Selection, Supplier Rating, Relationship Development, Performance Measures - Basic Concepts, Strategy, Performance Measure.

UNIT-III

Statistical Process Control: The seven tools of quality, Statistical Fundamentals - Measures of central Tendency and Dispersion, Population and Sample, Normal Curve, Control Charts for variables and attributes, Process capability, Concept of six sigma, New seven Management tools.

UNIT-IV

TQM Tools: Benchmarking - Reasons to Benchmark, Benchmarking Process, Quality Function Deployment (QFD) - House of Quality, QFD Process, Benefits, Taguchi Quality Loss Function, Total Productive Maintenance (TPM) - Concept, Improvement Needs. Quality System: Need for ISO 9000 and Other Quality Systems, ISO 9000:2000 Quality System - Elements, Implementation of Quality System, Documentation, Quality Auditing, TS 16949, ISO 14000 - Concept, Requirements and Benefits.

Recommended Readings:

1. Besterfield Dale H, Quality Control, Pearson Education.
2. Charantimath, P., Total Quality Management, Pearson Education.
3. Bedi, Quality Management, Oxford University Press.
4. Juran J. M. and Gryna, Jr. F.M., Quality Planning and Analysis, TMH, New Delhi
5. Ronald G Day, Quality Function Deployment, TMH, New Delhi..
6. Evan J.R., Total Quality Management, Excel Book, New Delhi.
7. Hansan B.L. andGhare, P.M. Quality Control and Application, PHI.
8. Hagan, Management of Quality, Oxford University Press.
9. Juran J M and Frank M Gryna, Quality Planning andAnalysing, TMH, New Delhi.

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Supply Chain and Logistics Management

Course Code: 20IMG23GO3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: explain concept and definitions of Supply Chain.
CO2: identify role of Supply Chain as a value driver - Integrative Management, Responsiveness, Financial Sophistication
CO3: appreciate the impact of globalization and technological revolution in Supply Chain management.
CO4: explain Customer Value, Customer satisfaction and CRM

UNIT-I
Understanding the Supply Chain: Define Supply Chain, Objective of a Supply Chain, Importance of Supply Chain Decisions, Decision Phases in a Supply Chain, Process View of a Supply Chain, Competitive and Supply Chain Strategies, Achieving Strategic Fit, Expanding Strategic Scope, logistics as integral part of SCM, components of logistics

UNIT-II
Designing the supply chain network: role of distribution, factors influencing distribution, design options, e-business and its impact , distribution networks in practice, network design in the supply chain, role of network, factors affecting the network design decisions, modelling for supply chain, designing and planning transportation networks: Role of transportation, modes and their performance, transportation infrastructure and policies design options and their trade-offs, tailored transportation.

UNIT-III
Purchasing and Vendor management: Centralized and decentralized purchasing, functions of purchase department and purchase policies, single vendor concept, management of stores, accounting for materials. Inventory Management: Concept, various costs associated with inventory, various EOQ models, buffer stock (trade-off between stock out / working capital cost),lead time reduction, re-order point / re-order level fixation, exercises , ABC, SDE / VED Analysis, Just-In-Time and Kanban System of Inventory management.

UNIT-IV
Decision-support systems for supply chain management: Introduction, the challenges of modelling structure of decision support systems, input data, analytical tools, presentation tools, supply chain decision: support systems. Recent Issues in SCM: Role of Computer / IT in Supply Chain Management, CRM vs. SCM, Benchmarking concept, Features and Implementation, Outsourcing-basic concept, Value Addition in SCM-concept of demand chain management.

Recommended Readings:.

1. Chopra, S. Peter Meindl, Kalra, D.V. "Supply Chain Management Strategy, Planning and Operation", Pearson Ed.
2. Shah, J. "Supply Chain Management", Pearson Education
3. Sharma: Supply Chain Management, Oxford University Press
4. Donald J Bowersox, Dand J Closs, M Bixby Coluper, "Supply Chain Logistics Management", TMH
5. Sahay B.S. "Supply Chain Management", Macmillan, New Delhi.
6. Agarwal D.K. "A Text Book of Logistics and Supply chain management", Macmillan, New Delhi.
7. Raghuram G. "Logistics and Supply Chain Management", Macmillan, New Delhi

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Service Operations Management

Course Code: **20IMG23GO4**

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand decision making in planning, design, delivery, quality, and maintenance and scheduling of service operations.
CO2: describe the role of service quality and supply chain in emerging service economy of India.

UNIT-I

Matrix of Service Characteristics: Challenges in Operations Management of Services: Aggregate Capacity Planning for Services; Facility Location and layout for Services

UNIT-II

Job Design - Safety and Physical Environment; Effect of Automation; Operations Standards and Work Measurement;

UNIT-III

Measurement and Control of Quality of Services; Dynamics of Service Deliver) System; Scheduling for Services Personnel and Vehicles; Waiting - Line analysis;

UNIT-IV

Distribution of Services; Product-Support Services; Maintenance of Services; Inventory Control for Services: Case Studies on Professional Services.

Recommended Readings:

1. Robert Johnston, Service Operation Management, Pearson Education.
2. Collier David A., Service Management Operating Decisions. Englewood Cliffs, Prentice Hall Inc.
3. Fitzsimmons, James A and Sullivan, Robert S., Service Operations Management... McGraw-Hill.
4. Sharma, J K., Service Operations Management, Anmol Publications.
5. Heskett, James L. et al., Service Breakthroughs - Changing the Rules of the Game, Free Press.
6. Murdiek, R G. et al., Service Operations Management, Allyn and Bacon.
7. Voss, C. et al., Operations Management in Service Industries and the Public Sector, Chichester, Wiley.
8. Bowmen David E. et al., Service Management Effectiveness: Balancing Strategy, Organization and Human Resources, Operations and Marketing, Jossey Bass.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Research and Development Management

Course Code: **20IMG23GO5**

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the different types of Research and Developmental environment
CO2: appreciate the procurement procedure for effective Research and Development management

UNIT-I
Survey of Emerging Technologies - Environment Analysis; Project Proposals; R and D Management: Management of knowledge workers.

UNIT-II
R and D environment; Management of High value Instruments Test Facilities, Workshops etc., Identification of partners/contractors for Rand D Projects; R and D Budget.

UNIT-III
Technology Scanning: Procurement Procedure; Material Management Policy; Discard Policies and Procedure; Contract Management; Procurement and Utilization of Capital Equipment; Test Equipment.

UNIT-IV
Test Facilities; Sharing of resources with other Institution - Sponsored Resources; Development Tools.

Recommended Readings:

1. Cetron, Marvin J. and Goldhar, Joel D (ed.), The Science of Managing Organised Technology, Gordon and Research, Science Publications.
2. Jain, R K. and Triandis, H C., Management of Research and Development Organizations; Managing the Unmanageable, Wiley.
3. McLeod, Tom. The Management of Research, Development and Design in Industry, Gower.
4. Meredith, Jack R. & Mantel, Samuel J., Project Management a Managerial Approach, Wiley.
5. NTIS, The Management of Government R and D Projects; the effects of the contractual requirement to use specific management techniques, University of Texas.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Legal Institutional Dynamics

Course Code: **20IMG23GP1**

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: know about the features of Indian Constitution
CO2: understand about the structure of our parliament
CO3: develop deeper understanding of the federal structure of Indian
CO4: understand about Indian Judicial System
CO5: get insights about the State and Local Government in India

UNIT I
Features of Indian Constitution: Salient Features and sources of Indian Constitution - The Preamble and its significance - Citizenship - Fundamental Rights and its limitations - Fundamental Duties and its implications - Directive Principles of State Policy and Welfare State

UNIT II
Union Government: Parliament: The President; Vice President - Lok Sabha and the Speaker - Rajya Sabha and the Chairman - The Prime Minister, Cabinet and the Council of Ministers - Elections, Powers and Functions - Emergency Provisions

UNIT III
State and Local Government: Governor - Chief Minister and Council of Ministers - Legislative Assembly and Speaker; Legislative Council and Chairperson - Elections, Powers and Functions - Panchayati Raj Institutions (PRI) - 73rdAmendment Act - 11thSchedule - PESA Act - Urban Local Government Institutions (ULGI) - 74th Amendment Act - 12th Schedule

UNIT IV
The Judiciary: Supreme Court, High Courts: Powers, Functions and Jurisdictions - Judicial Review - Judicial Activism - Public Interest Litigation (PIL) - Types of Writs

Recommended Readings:

1. Basu, Durga Das, (2002), Introduction to the Constitution of India, New Delhi: Wadhwa and Company Law Publishers.
2. Basu, Durga Das, (2008), Commentary on the Constitution of India, New Delhi: Wadhwa and Company Law Publishers.
3. Datar, Arvind P, (2010), Datar Commentary on Constitution of India (3 vols.), Nagpur: LexisNexis Butterworths Wadhwa.
4. Jain, M.P. (2010), Indian Constitutional Law 6thEdition (2 vols.), Nagpur: LexisNexis Butterworths Wadhwa.
5. Johari, J.C. (1995), The Constitution of India - A Politico-Legal Study, New Delhi: Sterling Publishers Private Limited.
6. Kashyap, Subhash, (2005), Our Constitution, New Delhi: National Book Trust.
7. Pylee, M.V. (2007), An Introduction to the Constitution of India, New Delhi: Vikas Publishing House Pvt.Ltd.
8. Pylee, M.V. (2008), India's Constitution, New Delhi: Vikas Publishing House Pvt. Ltd.
9. Shukla, V.N. (2003), Constitution of India, Lucknow: Eastern Book Company.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Development Economics

Course Code: **20IMG23GP2**

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: demonstrate familiarity with some central themes and issues of economic development
CO2: analyze empirical evidence on the patterns of economic development
CO3: demonstrate the understanding of the difference between growth and development and the measurement of inequality
CO4: understand the theories of development

UNIT-I

Economic Development: Meaning of economic growth and development, Factors determining economic growth and development; Measuring Development: Income Measures, Basic Needs Approach, PQLI and HDI and Capabilities Approach; Importance of agriculture and industry in economic development,

UNIT-II

Poverty and Inequality: Measurement, Impact and Policy options, relationship between poverty/inequality and economic development; Development Gap: concepts and measurement; land reform and its effects on productivity and development.

UNIT- III

Theories of Development: classical theory of development, Karl Marx's theory of development - theory of social change, capitalist development; Growth Models: Harrod and Domar Model, Neo Classical Growth Models, Endogenous Growth Model, Lewis Model; Amartya Sen vs Bhagwati debate on growth, Poverty and Distribution, Mahalanobis Model.

UNIT-IV

Environment and Sustainable Development: Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change.

Recommended Readings:

1. Michael P. Todaro, Stephen C. Smith, Economic Development, Pearson Education.
2. Mukherjee, A. and Chakrabarti S., Development Economics: A Critical Perspective, PHI india
3. Debraj Ray, Development Economics, Oxford University Press.
4. H.L. Ahuja, Development Economics, S. Chand Publication.
5. Chakravarti, S., Alternative Approaches to the Theory of Economic Growth, Oxford Univ. Press, Delhi.
6. Alfred W. Stonier, Douglas C. Hague, A Textbook of Economic Theory, Pearson Education.
7. Behrman, S. and T.N. Srinivasan, Handbook of Development Economics, Elsevier

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Right to Information Act

Course Code: **20IMG23GP3**

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: develop understanding about the Right to Information Act 2005
CO2: understand the functioning of various authorities under the Act
CO3: defend their rights by meaningful use of RTI Act
CO4: know about the obligations of public authorities
CO5: understand the practical applicability of the Right to Information Act, 2005

UNIT-I
Introduction of Right to Information Act 2005: History, Background, Objectives, Preamble of Right to Information Act 2005, Obligation of Public Authorities (Section 3 to 11), Right to Information as Constitutional rights: Protection of Article 19(1) (a), Right to privacy, Contempt of Court, Public Interest vis-à-vis Information; Right to Information Regime in India: a Tool in the hands of the Citizens

UNIT-II
The Central Information Commission: Constitutions, Eligibility criteria and Process of Appointment, Term of office and Condition of Service, Removal of Informational Commissioner; The State Information Commission: Constitutions, Eligibility criteria and Process of Appointment, Term of office and Condition of Service, Removal of Informational Commissioner

UNIT-III
Power and Function: Information Commission, Appeal and Penalties under Right to Information Act 2005; Breach of Confidentiality and Privacy: The Indian perspective an 'offence' under the Indian Information Technologies Act 2000; Using the RTI Act to get "Information"- The Filing of the Request for obtaining Information.

UNIT-IV
Public Authority vis-à-vis Right to Information Act 2005: Origin, History, Public Authority, right to Information, Breach of Duty to disclose by Public Authority; Right to Information and E-Governance: Electronic Information Dissemination, need for regulation, Jurisdiction in Cyberspace: Problem and perspective; Success Stories and Case Studies.

Recommended Readings:

1. The Right to Information Act Book, By Shruti Desai
2. The Right to Information Act,2005 By Dheera Khanawal and Krishna K. Khanawal
3. The Right to Information :Law-Policy-Practice By Rodney D Ryder
4. Handbook on The Right to Information Act By P.K. Das
5. Treaties on The Right to Information Act 2005 By Dr. Hiraj Kumar (2007)

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Public Finance Administration

Course Code: **20IMG23GP4**

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the meaning of public finance and its importance
CO2: know about the various committees regarding public finance
CO3: get knowledge about the Indian tax system, sources of revenue and its relation with economic growth
CO4: develop understanding about the financial issues in a federal set up
CO5: understand the fiscal policy and public financial administration

UNIT-I
Public Finance: Nature, Definition, Scope of Public Finance, Role of Public Finance in Economic Development and Principles of Maximum Social Advantage; Impact, shifting, incidence and effects of taxation; Parliamentary Financial Committees- Estimates Committee, Public Accounts Committee, Committee on Public Undertakings, Standing Committee for scrutiny of demands for grants.

UNIT-II
Sources of Revenue: taxes, loans, grants and aid - meaning and types, canons of taxation, problem of justice in taxes, incidence of taxation, taxable capacity, Impact of taxation and tax evasion characteristics of Indian tax system, defects and steps of reform; Public Expenditure: Meaning, Classification and Cannons of Public Expenditure, Effects of Public expenditure on- Production, Distribution and Economic Growth

UNIT-III
Public Debt: Meaning, Need, Sources and repayment, Effects of Public debt on - Money Supply, Economic Growth and Economic Stability; Federal Finance: Financial Issues in a Federal set up, Finance Commission, Principles of efficient division of financial resources between Central and States, Problems of financial imbalances and measures for adjustments.

UNIT-IV
Fiscal Policy: Meaning, Objectives of Fiscal Policy, role of fiscal policy in controlling inflation and stagnation, Fiscal Responsibility and Budget Management Act; Budgets: Meaning, Classification of Budgets, Fiscal Deficit, Deficit financing and deficit budget.

Recommended Readings:

1. H.L. Bhatia, Public Finance, Vikas Publication
2. R.A. Musgrave and P.B. Musgrave, Public finance in Theory and Practice, McGraw-Hill
3. J. Gruber, Public Finance and Public Policy, Macmillan Learning.
4. Hugh Dalton, Principles of Public Finance, Allied Publishers.
5. S.K. Singh, Public Finance in Theory and Practice, S. Chand Publishing.
6. M. Govinda Rao and Tapas Sen, Financial Federalism in India, McMillan, Delhi
7. Public Finance in Theory and Practice; Hollwy Ulbrich; Thomson - South Western, 2007.
8. Managing Government Expenditure; Salvatore Schiavo-Campo and Danial Tomasi : Asian Development Bank, 1999.
9. Constitution of India, Central Government Budget, Economic Survey, Various Reports of Finance Commission, Various Reports of Expenditure Reforms Commission.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Risk and Disaster Management

Course Code: 20IMG23GP5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the disaster phenomenon, its different contextual aspects and impacts
CO2: understand the process of disasters and related management aspects
CO3: know about importance of community involvement in disaster management
CO4: develop a deep understanding of disaster resilience, risk mitigation, and recovery policies
CO5: understand the role and use of media in disaster management

UNIT-I

Disaster Contexts: Meaning, Characteristics and Types of Disasters - Indian Society and its Vulnerability to Disasters - Hazards and Vulnerability factors - Risk assessment: Seismic Zones, Richter Scale and other measures - Impact of disasters on socio-economic development: Social, Economic, Political and Psychological - Food, Water, Shelter, Hygiene, Health, Education, Agriculture, Cattle wealth, Employment, Financial distress, Electricity, Infrastructure facilities, Transportation, Industry, Environment, Disorganising in the family, Governmental process, system and services - Impact of Disasters on population: Gender, Children, Aged, Poor, Differently abled, Shelter less, Coastal population, Tribal population.

UNIT-II

Disaster Management - Process and Institutions: Evolution of Disaster Management in India - Disaster Management Act, 2005 - Organization for Disaster Management at various levels - National Disaster Management Authority at National, State, District and Local Level - Role of National Institute of Disaster Management, State level institutions - Process: Disaster Preparedness, Prevention, Mitigation, and Rehabilitation - Capacity Building of the stakeholders - Institutional and Legal Mechanisms - Advocacy and Public awareness - Preparation of Prevention and Mitigation Strategies, Role of Media in Disaster Management.

UNIT III

Community-based Disaster Management: Community Based Disaster Management: Scope and Significance - Disaster Management Planning at Village Level - Mapping of the Area and Resources - Preparatory Exercises at the local level - Capacity building sessions: Mock Drills; Emergency Response and recovery; First Aid - Emergency Reconstruction; Temporary Relief and Rehabilitation.

UNIT IV

Disaster Preparedness and Risk Reduction: Disaster Preparedness and Risk Reduction: Scope and Significance - Eco Disaster Risk Reduction - Role of Local Governments in Disaster Preparedness and Risk Reduction - Analysis of functions by the Local Governments - Empowering Local Governments in Disaster Preparedness and Risk Reduction - Community Based Approach - Disaster Preparedness Measures: Constitution of Core team/ Task force - Village Disaster Management Plan - Capacity building of elected members, officials and community - Use of GIS data for disaster-specific information.

Recommended Readings:

1. Goel, S. L.(2009), Disaster Administration - Theory and Practice, Deep and Deep, New Delhi, 2009. Goel, S.L. (2010), Management of Natural Disasters, Deep and Deep, New Delhi, 2010.
2. Singh, Tej (Ed.). (2006), Disaster Management - Approaches and Strategies, Akansha Publishing House, New Delhi.
3. Kaur, Anu, et. al. (Eds.), Disasters in India - Studies of Grim Reality, Rawat Publications, Jaipur, 2005. Disaster Management and Panchayati Raj Institutions - PRIA, New Delhi, 2007.
4. Kafle, Shesh Kanta and Zubair Murshed. (2006), Community-Based Disaster Risk Management For Local Authorities, Asian Disaster Preparedness Center Through Its Partnerships For Disaster Reduction
5. Southeast Asia, Bangkok, Thailand.
6. Government of India. (2015). Best Practices in Panchayats on Livelihoods and Natural Resource Management, New Delhi: Ministry of Panchayati Raj.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Business Analytics

Course Code: 20IMG23GB1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: think critically in making decisions based on data and deep analytics.
CO2: use technical skills in predicative and prescriptive modeling to support business decision-making.
CO3: translate data into clear and actionable insights.

UNIT-I
Business analytics: introduction, types of analytics, characteristics of analytics, business analytics, and business intelligence; business analytics process and its relationship with decision making process; Advantage of business analytics: informed decisions, developing distinct capability, creating competitive advantage, key attributes of analytical competitors.

UNIT-II
Analytical methods and models: Descriptive analytics-overview of its tools and techniques, role in business analytics process and its importance in business decision making; Predictive analytics-nature and type of modelling, basics of data mining and machine learning environment, role in business analytics process and its importance in strategic decision making; Prescriptive analytics: basics of its tools and modelling, role in business analytics process.

UNIT-III
Business analytics in action: applicability and importance of business analytics in different areas- financial analytics, human resource analytics, marketing analytics, health care analytics, supply chain analytics, sport analytics and analytics for Government and non-profit organization.

UNIT-IV
Developing analytics: statistician, data scientist and data engineer and their key features, skills required for analytics, big data and its analyst, important analytics software, major companies providing analytical solutions, job opportunities in business analytics.

Recommended Readings:

1. James R. Evans, Business Analytics, Pearson Education.
2. Davenport, H., Harris J.G. (2007), Competing on Analytics: The New Science of Winning, Harvard Business Review Press.
3. Davenport H., Harris J.G. and Morison R. (2010). Analytics at Work: Smarter Decisions, Better Results, Harvard Business Review Press.
4. Schniederjans M.J., Schniederjans D.G. and Starkey C.M. (2014). Business Analytics Principles, Concepts, and Applications with SAS: What, Why, and How, FT Press Analytics.
5. Provost F., Fawcett T. (2013). Data Science for Business: What you need to know about data mining and data-analytic thinking, O'Reilly Media.
6. Siegel E. (2013). Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die, Wiley.
7. Fitz-enz J. and Mattox J. (2014).Predictive Analytics for Human Resources, Wiley and SAS Business Series.
8. Maisel L. and Gokins G. (2014). Predictive Business Analytics: Forward Looking Capabilities to Improve Business Performance, Wiley.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Fundamentals of Data Mining

Course Code: 20IMG23GB2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: describe the concept of Data Mining & its attributes
CO2: apply the concept of data mining components and techniques in designing data mining systems.
CO3: solve basic Statistical calculations on Data
CO4: describe the aspect of data pre-processing
CO5: explain the concept of Data Cleaning & Integration

UNIT-I
Introduction to Data Mining: basic concepts in data mining, machine learning, scientific methods, theoretical basis of data mining process, data measurement, exploratory data analysis, data visualization, measurement of data similarity and dissimilarity.

UNIT-II
Data Pre-processing: overview, data cleaning, data integration, data reduction, data transformation and data discretization; Data Warehouse and Online Analytics Processing: data warehouse, data cube and OLAP, data warehouse design and usage; Data Cube Technology- data cube computation, and its methods.

UNIT-III
Principles of Data Mining: predictive modelling- classification and regression, model fitting as optimization, evaluation of predictive performance, over fitting, regularization; clustering and pattern detection.

UNIT-IV
Text Mining: information retrieval and search, text classification, unsupervised learning; Web Data Analysis: Web data- collection and interpretation, analysing user browsing Behaviour, learning from click through data, predictive modelling and online advertising, link analysis and the PageRank algorithm. Social Network Analysis: descriptive analysis of social networks, network embedding and latent space models, network data over time: dynamics and event-based networks link prediction.

Recommended Readings:

1. Han J., Kamber M., Pei J. Data Mining: Concepts and Techniques, The Morgan Kaufmann Series in Data Management Systems.
2. Pang-Ning Tan, Introduction to Data Mining, Pearson Education.
3. Provost F. Data Science for Business: What you need to know about data mining and data-analytic thinking. O'Reilly Media.
4. Miner G. and Nisbet R. Handbook of Statistical Analysis and Data Mining Applications. Academic Press.
5. Ledolter J. Data Mining and Business Analytics with R .Wiley.
6. Witten I.H. and Frank E. Data Mining: Practical Machine Learning Tools and Techniques, The Morgan Kaufmann Series in Data Management Systems.
7. Dean J. Big Data, Data Mining, and Machine Learning: Value Creation for Business Leaders and Practitioners .Wiley and SAS Business Series.
8. Abu-Mostafa Y.S. and Magdon-Ismail M. Learning from Data.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Fundamentals of Econometrics

Course Code: 20IMG23GB3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
On successful complete of this course, the students should be able to:

CO1: provide knowledge about the scope of econometrics
CO2: prove economic theories mathematically
CO3: analyses how to maximise profit of the firms and industries
CO4: understand about the interrelationship between different sectors in an economy
CO5: understand the cost benefit analysis
CO6: understand the decision making process in industries

UNIT-I
Nature, scope and methodology of econometrics; Simple Linear Regression Model: Assumptions, Procedures and properties of OLS estimator, Co-efficient of determination, Tests of significance, Maximum Likelihood Method

UNIT-II
Multiple Linear Regression Analysis: Method of least squares, Properties of OLS estimator, Test of significance of regression co-efficient, R2 and adjusted R2; Econometric Problems: Multicollinearity, Autocorrelation and Hetroscedasticity.

UNIT-III
Dummy variables-Nature and uses, Regression on dummy variables, Regression on Dummy Dependent Variable-The basic idea of the Linear Probability Model (LPM), Probit and Logit Models. Dynamic Econometric Models: Koyck distributed lag model, the adaptive expectation model, and the partial adjustment model.

UNIT-IV
Simultaneous Equation Models: Structural, Reduced and final forms, Identification-Order and rank conditions, Methods for estimating the simultaneous models-Basic idea of Indirect Least Square (ILS) and Two Stage Least Square (2SLS) methods. Seemingly Unrelated Regressions (SUR), SUR versus OLS.

Recommended Readings:

1. Greene, William H., Econometric Analysis, Pearson Education.
2. A.H Studenmund, Using Econometrics, Pearson Education.
3. Johnston, J., Econometric Methods, McGraw -Hill.
4. Gujrati, Damodor N., Basic Econometrics, McGraw-Hill.
5. Stock J. H. and Watson M.W. Introduction to Econometrics, Pearson Education.
6. Koutsoyiannnis, A., Theory of Econometrics, Harper and Row.
7. Kmenta, J., Theory of Econometrics, Macmilan.
8. Maddala, G.S., Introduction to Econometrics, Macmillan.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Predictive Business Analytics

Course Code: 20IMG23GB4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
On successful complete of this course, the students should be able to:

CO1: analyse current and historical facts to make predictions about future, or otherwise unknown, events.
CO2: understand and exploit patterns in historical and transactional data
CO3: identify risks and opportunities.

UNIT-I
Introduction to Predictive Analytics: overview, business intelligence, predictive analytics in relation to business intelligence, statistics, data mining; Big data, importance in decision making; Setting up problem-CRISP-DM, business understanding, Defining data, target variable and measures of success for predictive modelling; Methodology of predictive modelling.

UNIT-II
Prediction Methods: Linear Regression- best subset selection, forward selection, backward selection, step-wise regression, Cp mallows and adjusted R-square criteria; k-Nearest Neighbours (k-NN); Regression Trees- CART,CHAID; Neural Nets- architecture of neural nets, neurons, input layer, hidden layers, output layer.

UNIT-III
Classification Methods: the naïve rule, Naïve-Bayes classifier, K-Nearest neighbours, Classification Trees, Neural Nets, Logistic Regression.

UNIT-IV
Non-supervised Learning: Association Rules- support and confidence, the apriori algorithm, the selection of strong rules; Cluster Analysis- hierarchical methods, optimization and the k-means algorithm, similarity measures, other distance measures. Ensemble Methods: Nelson and Granger-Ramanathan methods for continuous targets, Majority voting for categorical targets, Bagging, Boosting.

Recommended Readings:

1. Miller Thomas W. Modelling Techniques in Predictive Analytics with Python and R, Pearson Education.
2. Maisel L. and Cokins G. Predictive Business Analytics: Forward Looking Capabilities to Improve Business Performance. Wiley.
3. Marketing Data Science: Modelling Technique in Predictive Analytics with R and Python, Pearson Education.
4. Siegel E. Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die. Wiley.
5. Bartlett R. A Practitioner's Guide to Business Analytics: Using Data Analysis Tools to Improve Your Organization's Decision Making and Strategy .McGraw-Hill Education.
6. Fitz-enz J. and Mattox II J. Predictive Analytics for Human Resources. Wiley.
7. Abbot D. Applied Predictive Analytics: Principles and Techniques for the Professional Data Analyst; Wiley.
8. Dean J. Big Data, Data Mining, and Machine Learning: Value Creation for Business Leaders and Practitioners .Wiley and SAS Business Series.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Time Series Econometrics

Course Code: 20IMG23GB5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
At the end of course student will be able to:

CO1: understand the basics of time series data.
CO2: understand the stationary time series models.
CO3: perform forecasting with time series data.
CO4: apply time series techniques to state space models, ARCH and GARCH, multivariate time series.

UNIT-I
Business Forecasting: Business forecasting and planning, Common time series patterns, Types of forecasting methods, Statistical fundamentals for evaluating forecasting.

UNIT-II
Univariate Smoothing Methods: Moving average, weighted moving average, Exponential smoothing, Seasonal indexes, Trend-seasonal and Holt-Winters smoothing.

UNIT-III
Stationary Time Series Models: Stochastic process, Stationarity, Modelling AR, MA, ARM processes, Deterministic and stochastic trends, unit roots, Testing unit roots – Dickey and Fuller, Phillips and Perron tests.

UNIT-IV
Multivariate Models: Intervention analysis, Transfer function models, VAR analysis –Estimation, Identification and the Impulse response function. Long run Models: Cointegration – Eagle-Granger Methodology, Johanson approach, Error correction models, Granger Causality, Exogeniety, Modelling Volatility: ARCH, GARCH, and ARCH-M and EGARCH models.

Recommended Readings:

1. John. E. Hanke, Business Forecasting, Pearson Education.
2. Delurgio Stephen A., Forecasting Principles and Applications, McGraw-Hill.
3. Patterson K.,An Introduction to Applied Econometrics, Palgrave.
4. Enders Walter, Applied Econometrics Time Series, John Wiley.
5. Diehold Francis X., Elements of Forecasting, South Western, Thomson.
6. Spyros G. Makridakis, Steven C. Wheelwright and Rob J. Hyndman, Forecasting Methods and Application, John Wiley.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Agri-Business Environment and Policy
Course Code: 20IMG23GA1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
At the end of course student will be able to:

CO1: understand the role of agriculture in development process
CO2: understand the importance of agricultural finance in modern agriculture and inter linkage of agricultural credit and other input markets and product markets.
CO3: demonstrate production and processing trends in exports and imports of major agricultural commodities.
CO4: understand the marketing policy of agricultural commodities.

UNIT - I
Role of agriculture in Indian economy, Problems and policy changes relating to farm supplies, farm production, Agro processing, agricultural marketing, agricultural finance in the country.

UNIT - II
Impact of globalization on agribusiness sector, Structure of agriculture, Linkages among sub-sectors of the agribusiness sector, Economic reforms and Indian agriculture.

UNIT - III
Agribusiness- concepts and approach, evaluation of systems, Emerging trends in production, processing, marketing and exports, Policy controls and regulations relating to the industrial sector with specific reference to agro-industries.

UNIT - IV
Agribusiness policies-concept and formulation, new dimensions in Agri-business environment and policy. Agricultural price and marketing policies, distribution system and other policies.

Recommended Readings:

1. Adhikary, M. 1986. Economics Environment of Business. S. Chand and Sons.
2. Aswathappa, K. 1997. Essentials of Business Environment. Himalaya Publ.
3. Saleem Shaikh, Business Environment, Pearson Education.
4. Francis Cherunilam. 2003. Business Environment. Himalaya Publ.
5. Kulkarni. B. D. 1996. Economic Analysis and Business Policy.
6. Khan, M. Y. and Jain, P. K. 1997. Financial Management.
7. Chandra, P. 1997. Financial Management.
8. Shete, N. B. 2000. Financing Agri-Business.
9. Deshpande, R.S. and Arora, S., 2010, Agrarian crisis and farmer suicides. Sage Publications, Delhi.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Food Technology and Process Management
Course Code: 20IMG23GA2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
At the end of course student will be able to:

CO1: understand the hazards during processing, storage, handling and distribution
CO2: analysis various costs involved in food processing organizations
CO3: understand Laws and regulations related to food industry

UNIT - I
Present status of food industry in India, organization in food industry. Introduction to operations of food industry, Deteriorative factors and hazards during processing, storage, handling and distribution.

UNIT - II
Basic principles of food processing, food preservation by manipulation, Application of energy, radiations, chemicals and biotechnological agents, Packaging of foods, Analysis of costs in food organization.

UNIT - III
Risk management: Laws and regulations related to food industry and food production and marketing, quality management, Prevention of food adulteration, ISO standards.

UNIT - IV
Case studies on project formulation, milk and dairy products, cereal milling, oil-seed and pulse milling, oil and fat processing, Case studies on sugarcane milling, honey production, baking, confectionery, Case studies on processing of fruits- fruit jam, jellies etc., Case studies on fruits and vegetable storage and handling, Case studies on vegetables processing-tomato ketchup etc., Case studies on egg, poultry, fish, meat handling and processing.

Recommended Readings:

1. Acharya, S. S. and Aggarwal, N. L. 2004. Agricultural Marketing in India. Oxford and IBH.
2. Early, R.1995. Guide to Quality Management Systems for Food Industries. Blackie.
3. Jelen, P. 1985. Introduction to Food Processing. Reston Publishing.
4. Potly, V.H. and Mulky, M. J. 1993. Food Processing. Oxford and IBH.
5. Krammer A and Twigg BA. 1973. Quality Control in Food Industry, Vol. I, II, AVI Publ.
6. Ramaswamy H and Marcotte M. 2006. Food Processing: Principles and Applications. Taylor and Francis.
7. Verma L.R. and Joshi V.K. 2000. Post-Harvest Technology of Fruits and Vegetables. Indus Publ.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Agri-Business Management
Course Code: 20IMG23GA3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
At the end of the course students will be able to:

CO1: understand the basic concepts like Nature and scope of Agri-business, Importance of Agri-business Management, difference between farm and non-farm sectors, demand for agri-products and its determining factors Supply of agri-products and its determinants.
CO2: understand how different principles like value CACP quality & price – cost of production- fixed and variable costs-Gross margins- comparative advantage supplementary enterprises- Laws of returns-measurement of agricultural cost A,B,C methods.
CO3: understand emerging agro processing industries like Management and processing of Sugar industry, Dairy processing, Cotton textiles, Oil Seeds processing- Sericulture, Horticulture, and floriculture processing, medicinal plants. Problems and prospects of Agro, processing industries in India.
CO4: understand and explore new trends like ITC e-choupal, contract farming, precision farming, and logistics in agri-products in India

UNIT - I
Nature, scope and characteristics business management, Role of farm business management, Farm management decisions; farm management problems, Principles of farm management decisions.

UNIT - II
Principle of variable proportion and cost principle, Principle of factor substitution, Law of equi-marginal returns, opportunity cost principle.

UNIT - III
Tools of farm management and farm business analysis, Farm planning and budgeting, Farm records and accounts, types and problems in farm records and accounts, net worth statement, farm efficiency measures.

UNIT - IV
Management of farm resources – land, labor, capital, farm machinery, farm building, Risk and uncertainty in farming, Sources of uncertainty in farming, Management strategy to counteract uncertainty, Decision making process in farm business management under risks and uncertainty.

Recommended Readings:

1. Heady, E. O and Jensen, H. 1960. Farm Management Economics. Prentice Hall.
2. Johl, S. S and Kapoor, T. R. 1973. Fundamentals of Farm Business Management. Kalyani Publ.
3. Kahlon, A. S and Singh, K. 1992. Economics of Farm Management in India. Allied Publ.
4. Panda, S. C. 2007. Farm Management and Agricultural Marketing. Kalyani Publ.
5. Dhondyal. S. P. Farm Management.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Agri-Business Entrepreneurship
Course Code: 20IMG23GA4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
At the end of the course students will be able to:

CO1: Understand the development of entrepreneurship as a field of study and as a profession.
CO2: Understand the creative process of opportunity identification and screening.
CO3: Understand the importance of innovation in the creation of sustainable competitive advantage.
CO4: Use business models, pro-forma statements and cash flow projections to understand venture processes.
CO5: Use a number of techniques to test a business model to ensure its viability.
CO6: Describe a new business in a well-written venture plan.
CO7: Understand the reasons for a choice of legal formation.
CO8: Identify with the role of an entrepreneur in developing a new venture

UNIT – I
Agripreneurship – Concept, characteristics, Approaches, Theories, Need for enterprises development. Traits/Qualities of entrepreneur, Entrepreneur behavior, skills; Entrepreneurship, Strategies for making decision, Classification of Entrepreneurs, Entrepreneur vs. Professional Managers.

UNIT – II
Entrepreneurial Process and Structure, Barriers to Enterprise, Sources of Innovative Opportunities, Marketing Research; Business Environment – Micro Environment, Macro Environment, Venture Feasibility – Technical, Marketing, Financial Feasibility, Starting new business or buy firms. Entrepreneurship in Agricultural Sector.

UNIT – III
Business strategy - concept - long term and short term focus; Business organization; Sources of Finance, Venture capital financing - concept, purpose and schemes, Capital Markets, Government Policies and Regulations for Agribusiness.

UNIT – IV
Business Plan – Sources of Product, Pre-Feasibility Study, Criteria for selection of product, Ownership and Capital, Growth Strategies in business – Market penetration, Market expansion, Product Expansion, Diversification, Acquisition, Steps in Product launch.

Recommended Readings:

1. Dandekar, V. M. and Sharma, V. K., 2016, Agri-Business and Entrepreneurship Development. Manglam Publications, New Delhi.
2. P. Charantimath, Entrepreneurship Development and Small Business Enterprises, Pearson Education.
3. Desai, V., 2006, Entrepreneurship Development, Project formulation, Appraisal and Financing for Small Industry. Himalaya Publications, New Delhi.
4. Hisrich, R. D. and Peters, M. P., 2002, Entrepreneurship, Tata McGraw Hill.
5. Kaplan, J. M. and Warren, A. C., 2013, Patterns of Entrepreneurship Management, John Wiley and Sons; 4th revised edition.
6. Nandan, H., 2007, Fundamentals of Entrepreneurship Management, Prentice Hall.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Agri-Supply Chain Management
Course Code: 20IMG23GA5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
At the end of the course students will be able to:

CO1: understand supply chain operations and logistics strategies.
CO2: understand the supply chain operations & logistics planning.
CO3: identify the risk in supply chain operations and managing that risk.
CO4: understand the effective management of supply chain operations and logistics.

UNIT - I
Supply chain- changing business environment, SCM- present need, and conceptual model of supply chain management. Evolution of SCM, SCM approach, and traditional agri. supply chain management approach, modern supply chain management approach, elements in SCM.

UNIT - II
Demand management in supply chain- types of demand, demand planning and forecasting. Operations management in supply chain, basic principles of manufacturing management. Procurement management in agri-supply chain purchasing cycle, types of purchases, contract/corporate farming. Classification of purchases of goods or services, traditional inventory management. Material requirements planning, Just in Time (JIT), Vendor Managed Inventory (VMI).

UNIT - III
Logistics management- history and evolution of logistics. Elements of logistics, management, distribution management. Distribution strategies, pool distribution. Transportation management, fleet management, service innovation. Warehousing, packaging for logistics, Third-Party Logistics (TPL/3PL), GPS technology.

UNIT - IV
Concept of information technology- IT application in SCM. Advanced planning and scheduling, SCM in electronic business. Role of knowledge in SCM, performance measurement and controls in agri-supply chain management. Benchmarking- introduction, concept and forms of benchmarking.

Recommended Readings:

1. Janat Shah, Supply Chain Management: Text and Cases, Pearson Education.
2. Sunil Chopra, Supply Chain Management, Pearson Education
3. Monczka, R, Trent R. and Handfield, R. 2002. Purchasing and Supply Chain Management. Thomson Asia.
4. Van Weele, A. J. 2000. Purchasing and Supply Chain Management Analysis, Planning and Practice. Vikas Publ. House

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

B2B Marketing

Course Code: 20IMG24C1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: describe the applications, challenges and the dynamic environment of B2B marketing, including the unique nature of organizational buying behaviour.
CO2: design strategies and structures to effectively serve the B2B market.
CO3: apply a systematic approach to problem solving and decision making in business marketing organizations through the use of case studies.
CO4: develop a business marketing plan for a real local company that mainly targets business customers

UNIT-I

Market Opportunity Identification-Analysis and Evaluation, Introduction to B2B Marketing. Customer Analysis: Purchase process, Buying Teams, Business Buying and the Individual Manager, the effect of IT on purchase Behaviour. Customer Relationship Management Strategies for Business Markets: Relationship theories and variables, Business Marketing as Network Analysis and Management.

UNIT-II

Assessing Market Opportunities, Environmental changes impacting Supply Chain Power, Strategic Market Planning: The purpose of strategy, approaches to strategy, Business Marketing Strategy.

UNIT-III

Managing Products for Business Markets, Managing Business Marketing Channels, Pricing: Costs, customers and Competitors, Pricing strategy and organization, Relational Aspects of Business-to-business pricing, Bid pricing, Key Account Management.

UNIT-IV

Business Marketing Communication: Integrated Communication strategy, Relationship communication: Direct Marketing, Personal Selling, Relationship Communication Process, and Coordinating Relationship Communication. B2B Branding.

Recommended Readings:

1. Ross Brennan, Louise Canning and Raymond McDowell, "Business-to-Business Marketing", Sage Publications.
2. James. C. Anderson, Business Marketing Management (B2B): understanding, Creating, and Delivering Value, Pearson Education.
3. Robert Vitale, Business to Business Marketing, Pearson Education.
4. John M. Coe. "The Fundamentals of Business-to-Business Sales and Marketing", McGraw Hill Education, New Delhi.
5. Dwyer Robert F, Tanner F. John. Business marketing- Connecting Strategy, Relationships, and learning. McGraw Hill Irwin.
6. Hutt, M.D., and Speh, T.W. Business Marketing Management: B2B, Loose-Leaf with Mindtap. Boston: Cengage

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

CSR and Business Ethics

Course Code: 20IMG24C2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completion of the course, student will be able to:

CO1: analyze the impact of environmental issues on business.
CO2: understand the social responsibilities of business.
CO3: evaluate the effects on a firm's costs of meeting its ethical, social and environmental responsibilities.
CO4: learn about various standards and codes related to business
CO5: understand Basic concepts of Business Ethics understand Values, Norms and Beliefs
CO6: analyze the Role of values for managers
CO7: understand Ethical Codes understand Corporate Social Responsibility Analyze CSR initiatives
CO8: understand Ethical issues in employer – employee relation

UNIT I

Indian Ethos: Meaning of Bharat, relevance of Indian ethos, role of Indian ethos in managerial practices; Sources of Indian Ethos in Management: Vedas, Ramayana, Bible, Quran, Kautilya's Arthashastra, Ethics vs. Ethos; Indian Management v/s Western Management

UNIT II

Modern Approach towards Indian Ethos : Introduction, Indian Management Thoughts, Holistic Approach to Management; Sadhana −In Management context, The Tatwas in Indian Ethos; Management Thoughts and Practice: Harmony with Environment, Dharma, Swadharma and Detachment, Holistic approach to Personality, Managerial Purusharth Karma yoga and enlightened leadership

UNIT III

Learning and Education System in India: Learning concept, Gurukul System of Learning, The beginning of modern education system, Achievements of the Indian education system; Law of Karma, Law of creation, law of humility, law of growth, law of responsibility

UNIT IV

Human Values: Meaning, significance, Vedic literature and values, formation of values, Aristotle's view on value inculcation, Objectives of value-based system, Interrelation of Values and Skills, Values and the workplace, Value-based Human response management, Need of value-based holistic management, Value-driven management, Indian culture and wisdom, The ethical and spiritual values and Methods of heart and mind purification

Recommended Readings:

1. Agarwal, T. and Chandorkar, N., Indian Ethos in Management, Himalaya Publishing House
2. Nandgopal, R. and Sankar, R.N.A., Indian Ethos and Values in Management, Tata McGraw Hill Education
3. A.C Fernando, Business Ethics, Pearson Education.
4. Ganjre, A.K., Pawar, P. and Laxman R., Indian Ethos - Modern Management Mantra, Himalaya Publishing House
5. Bansal, I., Management Concept in ancient India psycho-philosophic thought and their significance in present day organization, Jaipur, Narayan Publication
6. Sharma. S., Management in New Age: Western Windows Eastern Doors Management, New Age International

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Business Negotiations and Employee Relations

Course Code: 20IMG24GH1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand employee relation and negotiations imperatives in the changed business environment.
CO2: distinguish the employee rights and obligations according to the scope of employment.
CO3: analyze negotiations and employee relation in organization.
CO4: describe, appreciate and explain the actions taken on different stages of negotiations in organization.

UNIT-I

Negotiation Fundamentals: Nature of negotiations and conflicts; distributive and integrative negotiation; negotiation strategy and Planning: Unilateral vs. Bilateral Strategies, negotiation process, negotiation contexts: relationships in negotiations; forms of relationships.

UNIT-II

Individual differences: Personality and negotiations, Individual Differences: gender and negotiations, negotiation across cultures: International and cross cultural negotiations, resolving differences: Managing negotiation impasses, resolving impasses; Ethics in negotiation.

UNIT-III

Employee Relation Management: Meaning, Scope, Objectives and Factors of Employee Relation Management, Difference between Industrial relation and Employee relation; Paradigm Shift from Industrial Relations to Employee Relations: The Employee-Employer relations. Employee Relations in a strategic Framework, Employee Relations at the Workplace: Principles, Structures, Functions, Policies and Process, The Future of Employee Relations.

UNIT-IV

Employee Remuneration and Rewards: Terminology about Remuneration; Basic wages and salary Administration; Need, Principles; Elements for a sound Wage and Salary administration; Factors affecting wage and Salary Levels, Salary Differentials: Functions, Factors of Salary Differentials. Models of Remuneration: Hay Model of Total Rewards, Towards Perrin Model of Total Rewards. Types of Rewards: Intrinsic and Extrinsic Rewards, Financial and Non- Financial Rewards, Performance Based Vs. Membership Based Rewards. Role of Rewards System.

Recommended Readings:

1. P.N Singh, Employee Relations Management, Pearson Education.
2. Sinha, P.R.N., Sinha, Indu Bala and Seema Priyadarshini Shekar, "Industrial Relations, Trade Unions and Labour Legislation", Pearson Education
3. Rao V S P, "Human Resource Management- Text and Cases", Excel Books.
4. Ghosh and Nandan." Industrial relations and labour laws", McGraw Hill Education
5. Mamoria and Mamoria. "Dynamic of Industrial Relations in India", Himalaya Pub. House, New Delhi.
6. Venkatratnam: Industrial Relations, Oxford University Press
7. Singh, B.D. "Industrial Relations", Excel Publications, New Delhi
8. Ramaswamy E.A. "The Strategic Management of Industrial Relations", Oxford University Press.
9. Verma, Pramod."Management of Industrial Relations - Reading and Cases", Oxford and IBH Publication.
10. Monappa, Arun (2002). Industrial Relations. Tata McGraw Hill
11. Singh, B.D. "Industrial Relations", Excel Publications, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Training and Development

Course Code: 20IMG24GH2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand the role of training systems and processes in organization.
CO2: describe the psychology of the learning process on which training is based.
CO3 evaluate the value of the training once completed from the individual employee and the organization's viewpoint.
CO4: assess design, access and implement various methods, techniques and sources of training.

UNIT I

Training - concept and rationale, training system and processes, trends in training, KSA'S- Types; Aligning training with strategy; Role of stakeholders in training programme; Training needs assessment - organizational analysis, operational analysis, person analysis.

UNIT II

Learning Theories: Reinforcement theory, Social learning theory, Goal theory, Need theory, Expectancy theory, Adult learning theory and Information processing theory. Learning process, Factors influencing the learning process, Participants learning styles; Considerations in designing effective training programs - Selecting and preparing the training site, choosing trainers.

UNIT III

Training Methods: Presentation methods - Lecture and Audio visual techniques; Hands on methods- OJT, simulations, case studies, business games, role plays, Behaviour modelling; Group building methods: Adventure learning, team building, action learning; Evaluation of training - need for evaluation, criteria and approaches; return on investment in training.

UNIT IV

Special issues in training and employee development: Training issues resulting from the external environment- Legal issues, cross cultural preparation, managing work force diversity, school- to- work transition; Internal needs of the company - Life-long learning, Melting the Glass ceiling, joint union management programs, Succession planning, Developing managers with dysfunctional Behaviours. Management development: Characteristics of managers, Management development implications, Sources of knowledge/ skill acquisition, Training for executive -level management.

Recommended Readings:

1. Noe, A Raymond, and Kodwani, D Amitabh, Employee Training and Development, McGraw Hill Education
2. Blanchard, P Nick, and James W. Thacker, Effective Training - Systems, Strategies, and Practices, Pearson Education.
3. Agochia, Devendra, Every Trainer's Handbook, New Delhi; Sage Publications
4. Desimone, R. L., Werner, J. M. and Harris, D. M. "Human Resource Development", Thomson Learning Press.
5. Sahu, R.K., Training for Development, Excel Books, New Delhi
6. Goldstein, Training in Organization, Thomson Learning, Bombay
7. McGrath, Training for Life and Leadership in Industry, Prentice Hall of India, New Delhi
8. Jack J. Phillips, Hand book of Training Evaluation and Measurement Methods, Rutledge

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Managing Interpersonal and Group Processes

Course Code: 20IMG24GH3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: develop deeper understanding of the interpersonal and group processes in organizations.
CO2: examine and develop process facilitation skills through experience-based methods of learning.
CO3: grasp over the variety of skills that support work relationship in organizations.

UNIT-I
Group dynamics: types of groups, group properties, roles, norms, status and size, stages of group development and change; Group cohesiveness: factors contributing to group cohesiveness, Influence processes- power and politics in groups.

UNIT-II
Interpersonal communication: Uncertainty reduction theory, Social exchange theory, Cognitive dissonance theory; Interpersonal awareness and feedback process- Transactional Analysis; Interpersonal trust; Competition and cooperation.

UNIT-III
Group decision making: The Vroom Yetton Model, Techniques of group decision making, Advantages and disadvantages of group decision making; Group synergy; Team building.

UNIT-IV
Inter-group relation and conflict: nature and types of conflicts, causes of conflicts and remedial measures of group conflicts, Role of Negotiation in group conflicts; distributive and integrative negotiation, third party negotiation; Fundamental interpersonal relations orientation (FIRO-B).

Recommended Readings:

1. Robbins, S.P., Organizational Behavior, Pearson Education.
2. Chandan, J S, Organizational Behavior, Vikas Publication.
3. David A. Whetten, Development Management Skills, Pearson Education.
4. P.S James, Organizational Behavior, Pearson Education.
5. Mainiero, L A and Tromley C L., Developing Managerial Skills in OB, Prentice Hall of India,
6. Moore, M D., Inside Organizations: understanding the Human Dimensions, Sage.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

International Human Resource Management

Course Code: 20IMG24GH4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand strategic perspective of HRM in an organization.
CO2: understand the cultural and related Behavioural variables in HRM of International Organization.
CO3: understand forecasting, acquisition and management of human resources in an effective manner.

UNIT-I
IHRM- Introduction, differences between domestic and international Human Resource approaches of International Human Resource Management, Challenges in international labour market, Linking HR strategies to International expansion strategies, multiculturalism: nature of culture, cultural dimensions, managing across cultures: strategies, cross cultural differences and similarities.

UNIT-II
International environment: political, legal and technological; Recruitment and Selection - Staffing policies, approaches, Selection criteria, recent trends in international staffing, Performance management of international employees, issues in managing performance in the international context.

UNIT-III
HRM in cross border mergers and acquisitions. Training in international management: training strategies, expatriate training, types of training programmes and emerging trends in training for competitive advantage. International Compensation: objectives, theories, components and compensation package.

UNIT-IV
International industrial relations - nature, approaches and strategic issues before employers, employees and government. Cross cultural communication and negotiation: communication process, barriers, effectiveness and managing cross cultural negotiation. Repatriation: challenges, benefits, process and managing repatriation.

Recommended Readings:

1. Tony Edwards, International Human Resource Management, Pearson Education.
2. Luthans and Doh, "International Management: culture, strategy and Behaviour", Tata McGraw Hill, New Delhi.
3. Tayeb, International Human Resource Management, Oxford University Press.
4. Helen Deresky, "International Management: managing across borders and cultures, Pearson Education.
5. Budhwar, Pawan. "Managing Resources in Asia-Pacific". Rutledge Taylor and Francis Publication
6. Paul Sparrow., Chris Brewster and Hillary Harris. "Globalizing Human Resource Management", Rutledge Taylor and Francis Publication
7. Hofstede, G., Cultures Consequence: International Differences in Work Related Values, Sage.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Performance Management Systems

Course Code: 20IMG24GH5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the importance of performance management in business organizations.
CO2: understand the concept, importance, process and implementation of performance management systems in organizations

UNIT-I
Introduction to Performance Management, Performance Appraisal to Performance Management, Concept and Perspectives of Performance Management, Definitions of Performance Management, Characteristics of Performance Management, Objectives of Performance Management Principles of Performance Management, Importance of Performance Management, Benefits of Performance Management Determinants of Job Performance.

UNIT-II
Performance Management Process: Performance Management Process, Performance Planning, Meaning of Performance Planning, Characteristics of Performance Planning, Objectives of Performance Planning, Importance of Performance Planning, Methodologies of Performance Planning, Process of Performance Planning, Barriers to Performance Planning, Overview of Competency Mapping, Competency Defined, Competency Mapping Defined, Methods of Competency Mapping.

UNIT-III
Performance Appraisal: Meaning of Performance Appraisal, Performance Appraisal Defined, Characteristics of Performance Appraisal, Objectives of Performance Appraisal, Importance of Performance Appraisal, Principles of Appraising Performance, Process of Performance Appraisal, Approaches to Performance Appraisal, Methods of Performance Appraisal, Common Rating Errors, Advantages and Disadvantages of Performance Appraisal Elements of Good Performance Appraisal System.

UNIT-IV
Performance management and employee development: Personal Development plans, 360 degree feedback as a developmental tool, performance management and reward systems: performance linked remuneration system, performance linked career planning and promotion policy, Performance Counselling, Ethics in Performance Management, Ethics Defined, Principles of Ethical Performance Management, Ethical Issues and Dilemmas in Performance Management

Recommended Readings:

1. Rao, T.V. "Performance Management and Appraisal Systems", Response Bank, New Delhi.
2. Dipak Bhattacharya, Performance Management: System and Strategies, Pearson Education.
3. Kandula, Srinivas, "Performance Management", PHI, New Delhi.
4. Cardy, Robert L. "Performance Management: Concepts, Skills and Exercise", PHI, New Delhi.
5. Aguinis, Herman, "Performance Management", Pearson Education.
6. Kohli, Performance Management, Oxford University Press.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Insurance and Risk Management

Course Code: 20IMG24GF1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: outline the concepts of Insurance and its operations.
CO2: apply different procedures as to insurance activities.
CO3: learn to measure risk and return.
CO3: find the relationship between risk and return.
CO4: explain the various risk control measures available
CO5: suggest ways to finance risk

UNIT-I

Insurance-Concept, Nature, Classification-Life and Non-life, Functions, Importance and Principles of Insurance; IRDA Act 1999 - Organization, guidelines for life and Non-life insurance.

UNIT-II

Life Insurance -Concept; Public and Pvt. Sector companies in India - their products, schemes and plans; LIC Act 1956-An overview. General Insurance - Concept, Types; Public and Pvt. Sector companies in India - their products, schemes and plans. Motor Insurance and Health Insurance in India.

UNIT-III

Bases and mechanism for Insurance Premium calculation; Distribution channel in Insurance-Introduction, Individual Agents-Appointment, functions, code of conduct and remuneration; Claims settlement in Life Insurance and General Insurance.

UNIT-IV

Risk and its Management: Objectives of Risk Management, Risk Identification and Measurement, Risk Pooling Arrangements and Diversifications, Process of Risk Management.
Risk Management and Shareholder's Wealth. Risk Pricing. Process of Risk Control, Loss Prevention, Techniques of Risk Retention and Reduction.

Recommended Readings:

1. Nalini Prave Tripathy, Prabir Pal, 'Insurance theory and practice' TMH 2007.
2. George E. Rejda, Principles of Risk Management and Insurance, Pearson Education.
2. K.P. Singh, B.S.Bodla and M.C. Garg. Insurance Management, Deep and Deep Publications, Delhi.
3. M.N. Mishra, Insurance, Vikas Publication.
4. Harrington and Mehaus : Risk Management and Insurance, Tata McGraw Hills
5. George Rejda: Principles of Risk Management and Insurance

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Management of Financial Services

Course Code: 20IMG24GF2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: describe operational, business, financial and traditional risk.
CO2: distinguish among various financial intermediaries and markets.

UNIT-I
Financial Services – Silent features, scope and problems; regulatory and theoretical frame work of leasing; Merchant Banking and its services.

UNIT-II
Credit Rating Agencies – Objectives, functions, importance, rating methodologies and benchmarks, factoring and forfeiting- meaning, types and mechanism.

UNIT-III
Housing Finance – Evolution and Role, Housing Finance Institutions and types of loans, issues and future outlook, role of NHB in housing finance; Investor Protection Fund- objectives and grievances redressal mechanism under investor protection fund; Securitisation – concept, mode, mechanism and securitisation in India.

UNIT-IV
Venture capital- meaning and role, venture capital investment process, stages of venture capital financial and exit routs for venture capitalist; Private Equity – meaning, working and types; Mutual Funds- concepts, organization and types of mutual fund schemes.

Recommended Readings:

1. Suresh, P. and Paul. J., Management of Banking and Financial Services, Pearson.
2. Khan, M.Y. Management of Financial Services, McGraw-Hill.
3. Gordan, E and K. Natrajan, Emerging Scenario of Financial Services. Himalaya Publishing House.
4. B.V. Pathak, Indian Financial System, Pearson Education.
5. Bhole, L.M., "Financial Institutions and Markets", Tata McGraw Hill, New Delhi.
6. Machiraju, H.R. Indian Financial System", Vikas Publishing House.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Financial and Commodity Derivatives

Course Code: 20IMG24GF3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: construct models for pricing of financial derivatives
CO2: price simple financial derivatives with risk neutral valuation
CO3: present financial models and pricing of financial instruments

UNIT-I
Concept and type of derivatives; Participants - hedgers, speculators, arbitragers and scalpers; uses of derivatives; types of orders; derivative markets in India- current trends and future prospects.

UNIT-II
Fundamentals of futures and forwards - concept of futures; trading mechanics; basics of stock index future; interest rate futures; currency futures (basics); use of futures for hedging;; difference between forward and future contracts; clearing process.

UNIT-III
Types of options, trading strategies involving options; option pricing - black scholes option pricing model; Fundamental of swaps - introduction to swaps; interest rate swaps; currency swaps; mechanics of swap interest rate swap and currency swaps; swap pricing

UNIT-IV
Introduction to Commodity Derivatives: Cereals, metals and energy products; History and Contemporary issues of Indian derivative markets; Future of Commodity Derivatives in India.

Recommended Readings:

1. Hull, John C., Options, Futures, and Other Derivatives, Pearson Education.
2. Chance, Don M., An Introduction to Derivatives and Risk Management, Harcourt College Publishing
3. Robert A Strong, Derivatives: An Introduction, Thomson Learning, Bombay
4. Redhead, Financial Derivatives : An Introduction to Future/Forward, Options and Swaps, Prentice Hall of India, New Delhi
5. Gupta, S.L., Financial Derivatives. PHI
6. Aman Chugh and Divik Maheshwari, Financial Derivatives, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

International Financial Management

Course Code: 20IMG24GF14

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: demonstrate the understanding of international financial theory and applications pertaining to, e.g. exchange rate determinants, foreign exchange exposure, foreign direct investment, interest rate parity, and the balance of payment.
CO2: develop a frame of reference through which to identify, evaluate and solve problems pertaining to international finance.
CO3: examine risk relating to exchange rate fluctuations and develop strategies to deal with them.

UNIT-I
An overview of international financial management; international monetary and financial systems, IBRD and development banks; finance function in a multination firms; international flow of funds

UNIT-II
International working capital management: international cash management; international receivable management, managing short term assets and liabilities; international capital money markets; euro dollar and currency market; financial market instruments - GDRs, ADRs, Euro issues, CP and ECB

UNIT-III
International and multinational capital budgeting, cost of capital and capital structure decisions; dividend policy of multinational firm

UNIT-IV
Developments in foreign exchange markets; exchange rate determination; measuring and managing various risks and exposure; country risk analysis; taxation in multinational firms; nature functions and participants of foreign exchange market; foreign exchange regulation in India.

Recommended Readings:

1. T. Siddaiah, International Financial Management, Pearson Education.
2. Madura Jeft, International Financial Management: Thomson Learning
2. Sharan, V., International Financial Management, PHI, New Delhi
3. Allen Shapiro, Multinational Financial Management, PHI, New Delhi
4. Levi, Maurice D., International Finance, McGraw Hill
5. Apte, P.G., International Financial Management. Tata McGraw Hill

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Financial Decisions Analysis

Course Code: 20IMG24GF5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: describe the basic concepts in operational finance
CO2: apply the decision analysis techniques and tools to various phases of financial processes.
CO3: apply suitable models and methods to decision making situations
CO4: solve financial decision problems through the use of quantitative and qualitative analysis techniques

UNIT-I
An overview of international financial management; international monetary and financial systems, IBRD and development banks; finance function in a multination firms; international flow of funds

UNIT-II
International working capital management: international cash management; international receivable management, managing short term assets and liabilities; international capital money markets; euro dollar and currency market; financial market instruments - GDRs, ADRs, Euro issues, CP and ECB

UNIT-III
International and multinational capital budgeting, cost of capital and capital structure decisions; dividend policy of multinational firm

UNIT-IV
Decision with the help of activity based costing, theory of constants and target costing; An overview of Balance Score Card.

Recommended Readings:

1. T. Siddaiah, International Financial Management, Pearson Education.
2 Madura Jeft International Financial Management: Thomson Learning
3. Sharan, V., International Financial Management, PHI, New Delhi
4. Allen Shapiro, Multinational Financial Management, PHI, New Delhi
5. Apte, P.G., International Financial Management. Tata McGraw Hill
6. Drury,Colin, Management Accounting and Control, Thomson Learning
7. Horngren, Datar Foster, Cost Accounting, Pearson Education
8. Hansen and Mowen, Cost Management, Thomson Learning

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Knowledge Management

Course Code: 20IMG24GT1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand Knowledge Management and its application in business
CO2: clearly characterize types of knowledge and structure of knowledge management solutions
CO3: analyze and evaluate organizational impacts of KM, factors influencing KM

UNIT-I
Basic concept of knowledge, intelligence and experience; data, information and knowledge; types of knowledge, implications of knowledge management, Knowledge management lifecycle.

UNIT-II
Knowledge creation; capturing tacit information, expert evaluation, fuzzy reasoning, interviews, onsite observations, brainstorming, protocol analysis, consensus decision making, Nominal Group Technique, Delphi method, Concept mapping, black boarding; Knowledge codification.

UNIT-III
Quality Assurance; Knowledge testing, Logical testing, User acceptance testing; Knowledge system deployment, User training and deployment; post implementation review.

UNIT-IV
Knowledge transfer: prerequisites, methods and strategies; Role of internet in knowledge transfer, overview of data visualization, data mining, knowledge management portals, Ethical, legal and managerial issues in knowledge management

Recommended Readings:

1. EM Awad and HM Ghaziri, Knowledge Management, Pearson Education.
2. Hislop, Knowledge Management, Oxford University, Press, Delhi.
3. Shukla and Srinivasan, Designing Knowledge Management Architecture, Sage, New Delhi
4. Warier, Knowledge Management, Vikas, New Delhi
5. H.C. Mruthyunjaya, Knowledge Management, PHI Learning Private Limited, New Delhi.
6. S. Debowski, Knowledge Management, Wiley India, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Information Security and Cyber Laws

Course Code: 20IMG24GT2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
On Completion of the course, the students will be able to

CO1: describe the concepts of Cybercrime and Information security.
CO2: analyse Cybercrime in Mobile and Wireless Devices.
CO3: apply security techniques for a given scenario.
CO4: analyse various Cyber Forensic algorithms.
CO5: implement various modules for cyber security applications.

UNIT-I
Overview of basic concepts of security: Confidentiality, Integrity and Availability; Security threats, Information security principles, operational and human issues in information and network security; Security policies: types, development and management

UNIT-II
Authentication, Access control mechanism, Physical security control, Operations security, Cryptography: basic concepts, symmetric and asymmetric cryptography; Key management, Firewalls, Intrusion detection, malware detection

UNIT-III
Legal Issues in information and communication technology, cyber-crime and IT Act 2000, Legal resources against Hacking, Cyber fraud, defamation and abuse, pornography and other IT offences; Contracts in cyber world and Jurisdiction

UNIT-IV
Cybersquatting, legal and other innovative moves against cybersquatting, Copyright and protection of contents; Software piracy; E-Commerce Taxation, Protection of Cyber consumers in India

Recommended Readings:

1. Mark Merkow and James Breithaupt, Information Security: Principles and Practices, Pearson Education.
2. Vivek Sood, Cyber Law Simplified, Tata McGraw Hill, New Delhi
3. Matt Bishop, Introduction to Computer Security, 1/e, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Systems Analysis and Design

Course Code: 20IMG24GT3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
On completion of the course, student will be able to:

CO1: understand the basic principles of systems analysis and design.
CO2: understand the role systems analyst in system design.
CO3: draw data dictionary, Pseudo code, Structured English, Data Flow Diagram

UNIT-I
Concept of system, Business Information System, types of business information systems, overview of system development methodologies, role of systems analyst, CASE tools for systems analyst; feasibility study - economic, organizational and cultural, technological, schedule and resource.

UNIT-II
System Development Life Cycle : Preliminary investigation - Information System Projects, evaluation of system requests, major steps in preliminary investigation; Systems Analysis - fact finding techniques, documentation, data flow diagrams, data dictionary; cost benefit analysis.

UNIT-III
Systems Design : User interface design, input and output design, data design; Systems Implementation: Application development, quality assurance, structured application development - structure charts, cohesion, coupling, testing, program, system, operations, user documentation; Installation - Training, system changeover.

UNIT-IV
Designing Distributed and Internet Systems: designing distributed systems - designing systems for LANs, for client / server architecture; designing internet systems - internet design fundamentals, design issues related to site management, managing online data.

Recommended Readings:

1. Kendall and Kendall, System Analysis and Design, Pearson Education.
2 Shelly, Cashman, Rosenblatt, System Analysis and Design, Cengage Learning.
3. Satzinger, System Analysis and Design, Cengage Learning.
4. Hawryszkiewyez, I T. Introduction to Systems Analysis and Design, PHI.
5. Whitten, J L. System Analysis and Design Methods, Galgotia.
6. Awad, Elias M., Systems Analysis and Design, Prentice Hall of India.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Programming in Visual Basic

Course Code: 20IMG24GT4

L-T-P
3-0-1

External Marks: 50
Sessional Marks: 50
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: learn different type of client server architectures and introduction to VB6 tool and its related objects.
CO2: learn the various programming constructs, syntax of various controls used in VB.
CO3: learn various ways to access data (like data control, DAO) in VB, how to deal with errors and exceptions in VB, and some other interfaces like MDI.
CO4: learn the concepts of COM, ActiveX Controls, how to make Data Reports and Crystal Reports and usage of VB script.

UNIT-I
Client Server Basics: Discover Client-Server and Other Computing Architectures, understand File Server versus Client -Server Database Deployment, Learn about the Two Tier Versus Three Tire Client-Server Model. Visual Basic Building Blocks and Default Controls: Forms, Using Controls, Exploring Properties, Methods and Events, Introduction to Intrinsic Controls, Working With Text, Working With Choices, Special Purpose Controls. VB Advance Controls: Events, Menu bar, Popup Menus, Tool bar, Message Box, Input Box, Built-in Dialog Boxes, Creating MDI, Working with Menus.

UNIT-II
VB Programming Fundamentals and Variables: Introduction to Variables, Variable Declaration. Arrays, Introduction to Constants and Option Explicit Statement, Assignment Statements, Working With Math Operations, Strings, Formatting Functions. Controlling And Managing Program: All Control Statement, Loops, Error Trapping, Working with Procedures, Functions, Windows Common controls, control arrays.

UNIT-III
Visual Basic and databases: understanding the Data Controls, Introduction to DAO, Working with Record sets, Record Pointer, Filter, Sorts and Manipulation of Records. Remote And ActiveX data Objects: Working with ODBC, Remote Data Objects and Remote data Control, Introducing ADO, ADO Data Control, Using Data Grid Control and ActiveX Data Objects.

UNIT-IV
COM and ActiveX Components: COM, Creating, Testing, Compiling, Enhancing and User Drawn ActiveX Controls, Building Class Modules, ActiveX DLL. Client-Server Development Tools: Data Reports and Crystal Reports, Packaging a Standard EXE Project.

Recommended Readings:

1. McBride, P.K. Programming in Visual Basic, BPB Publ.
2. Holzner Steven: Visual Basic Programming, IDG Books India Ltd

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of five short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

E-Business Information Systems Management

Course Code: 20IMG24GT5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: demonstrate advanced knowledge of technical and business issues related to E-Business and E-Commerce.
CO2: work in a virtual team environment, developing high-level business requirements

UNIT-I
Basics of E-Business, E-Business Strategy: Planning to Action, E-Business Design, and E-Procurement.
System Development Environment: Types of Information Systems; System Development Life Cycle; System Analyst – Role, Responsibility, Analytical Skills; Managing Information systems Project

UNIT-II
Information Systems Planning: Identifying and Selecting Systems Development Projects; Initiating and Planning Systems Development Projects.

UNIT-III
Information Systems Analysis: Determining System Requirements; Structuring System Process Requirements; Structuring System Logic Requirements; Structuring System Data Requirements.

UNIT-IV
Information Systems Implementation and Maintenance: System Implementation, Software Application Testing, Installation, Documenting the System, Training and Supporting Users, Organizational Issues in Systems Implementation; Maintaining Information Systems.

Recommended Readings:

1. Hoffer, Jeffrey A., et al., Modern Systems Analysis and Design, Pearson Education.
2. Laudon Kenneth and Laudon Jane, Management Information System, Pearson
3. O'Brien James A., Management Information Systems, Tata McGraw Hill.
4. Alter, Steven, Information Systems: The Foundation of E-Business, Pearson Education.
5. Kumar Muneesh, Business Information Systems, Vikas Publishing House.
6. Dewitz, Sandra D., System Analysis and Design and the Transition to Objects, McGraw- Hill.
7. Robertson James and Suzanne, Complete System Analysis, Volume I and II, Dorset House Publishing.
8. Sahil Raj, Management Information System, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

International Marketing Management

Course Code: 20IMG24GI1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: analyze international marketing, its opportunities and promotional policies of the governments to augment trade.

CO2: gain in-depth knowledge on Export – procedure & documentation, product planning and policy, Pricing, Distribution, Promotion and Financing

UNIT-I

Introduction: Basic Concepts of International Marketing, Definition and Dimensions of International Markets, Differences between Domestic and International Marketing, Benefits of International Marketing, EPRG Framework in International Marketing.

UNIT-II

Environment of International Business: Introduction, Political and Legal Environment, Cultural Environment, Financial and Monetary Environment. Indian Foreign Trade: Indian Trade Policy, Recent Transit in India's Foreign Trade, Export Assistance, Institutional Infrastructure for Export Promotion in India, EXIM Policy of India.

UNIT-III

Product Decisions: Product planning for global markets; Standardization vs. Product adaptation; New product development; Management of international brands; Packaging and labelling; Provision of sales related services. Pricing Decisions: Environmental influences on pricing decisions; International pricing policies and strategies. Promotion Decisions: Complexities and issues; International advertising, personal selling, sales promotion and public relations.

UNIT-IV

Distribution Channels and Logistics: Functional and types of channels; Channel selection decisions; Selection of foreign distributors/agents and managing relations with them; International logistics decisions. Overseas Market research, Marketing Plan for Exports, New Techniques in International Marketing, International Sub-Contracting, Joint Ventures, Multinationals Exports Finance, Risk Export Documents and Procedures.

Recommended Readings:

1. Gautam Dutta, Global Marketing, Pearson Education.
2. Mahapata, S N. Global Marketing Management: A Strategic Approach, Galgotia Publishing Company, New Delhi.
3. Cateora, Philip R. , John L. Graham and Salwan, Prashant. "International Marketing", TMH, New Delhi.
4. Keegan, Warren J., "Global Marketing Management", Pearson Education.
5. Srinivasan, R. "International Marketing", Prentice Hall of India, New Delhi
6. Rathore and Rathore, "International Marketing", Himalaya Publishing, New Delhi
7. Onkvisit, Sak and John J. Shaw, "International Marketing: Analysis and Strategy", Prentice Hall, New Delhi.
8. Hollensen and Banerjee, "Global Marketing", Pearson Education.
9. Chernnilam, Francis. "International Marketing", Himalaya Publishing House, New Delhi.
10. Czinkota, M.R., "International Marketing", Dryden Press, Boston.
11. Fayerweather, John, "International Marketing", Prentice Hall, New Delhi
12. Jain, S.C. "International Marketing", CBS Publications, New Delhi
13. Doole, J. and Lowe, R. "International Marketing Strategy", Thomson Press.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Cross Cultural and Global Management

Course Code: 20IMG24GI2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: demonstrate relevant knowledge, skills, and abilities when presented with cross-cultural management problems in multinational organizations.
CO2: demonstrate understanding and respect for culture difference.
CO3: apply theoretical frameworks in analyzing culture and related management problems.
CO4: provide critical and creative solutions for cross-cultural management problems.
CO5: prepare and present structured presentations and reports.

UNIT - I

Human and Cultural Variables in Global Organizations; Cross Cultural Differences and Managerial Implications, Complexities of international firms, staffing policy, Process of recruitment and training.

UNIT - II

Cross Cultural Research Methodologies and Hofstede's Study, Structural evolution of Global Organizations; Cross Cultural Leadership and Decision Making.

UNIT - III

Cross Cultural Communication and Negotiation, Human Resource Management in Global Organizations, Management of industrial relations.

UNIT - IV

Ethics and social responsibility in international business, Western and Eastern Management thoughts in the Indian Context, Management of cultural diversity.

Recommended Readings:

1. Adler, N J., International Dimensions of Organizational Behaviour, Kent Publishing.
2. Bartlett, C and Ghoshal, S., Transnational Management: Text, Cases and Readings in Cross Border Management, Irwin.
3. Marie- Joelle Browaeys, understanding Cross-Culture Management, Pearson Education.
4. Dowling. P J., International Dimensions of Human Resource Management, Wadsworth.
5. Hofstede, G., Cultures Consequence: International Differences in Work Related Values, Sage.
6. Marcie, D and Puffer, M., Management International: Cases, Exercises and Readings, West Publishing.
7. Mead, R., International Management: Cross Cultural Dimensions, Blackwell, Camb., Mass.
8. Mendenhall, M., Global Management, Massachusetts, Blackwell.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

International Business Laws

Course Code: 20IMG24GI3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: understand with the fundamental concepts and nature of International Business Laws
CO2: understand the fundamental Concept of GATT/WTO
CO3: Practice on the Identifying ethical dilemmas and resolving them

UNIT-I

Legal Framework of International Business: Nature and complexities; Major laws and their implications to business; International business contract- legal provisions; Payment terms; International sales agreements; Rights and duties of agents and distributors; Contract of Affreightment (carriage of goods by sea, air and overland).

UNIT-II

Enforcement and Settlement: Enforcement of contracts and dispute settlement; International commercial arbitration.

Regulatory Framework of WTO: Basic principles and charter of WTO; Provisions of WTO relating to preferential treatment of developing countries, custom valuation and dispute settlement; Implications of GATS, TRIPs and TRIMs.

UNIT-III

Regulations and Treaties relating to Technology Transfer: Licensing; Franchising, joint ventures, patents and trademarks; Regulatory framework relating to commerce.

UNIT-IV

Indian laws and regulations governing international transactions; Taxation of foreign income; foreign investments; setting up offices and branches abroad.

Recommended Readings:

1. Daniels, John, Ernest W. Ogram and Lee H. Redebungh: International Business. Environments and Operations, Pearson Education.
2. GATT/WTO, various publications.
3. Journal of World Trade Law.
4. Kapoor ND; Commercial Law; Sultan Chand and Co., New Delhi.
5. Lew, Julton D. M. and Clive Standbrook: (eds.), International Trade Law and Practice, Euromoney Publications, London.
6. Ministry of Commerce, (Govt. of India) Handbook of Import- Export Procedures.
7. Motiwal OP, Awasthi HIC: International Trade –the law and practice; Bhowmik and Company, New Delhi.
8. Patrick, H., International Business Agreements, Gower Publishing Co. Pvt.
9. Rao, S., Joint Ventures, Vikas Publication, New Delhi
10. Schmothoff C.R., Export Trade- The Law and Practice of International Trade

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Management of Multinational Corporations

Course Code: 20IMG24GI4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

At the end of the course students will be able to:

CO1: understand the functioning of MNCs, global companies, transnational companies.
CO2: understand a variety issues that are encountered by every professional in discharging professional duties.
CO3: become sensitive in the contemporary world to fulfil the professional obligations effectively.

UNIT-I

A conceptual background of MNC's: Defining MNC's, characteristics, types, growth and evolution of MNC's. A theoretical perspective: Internalisation theory, Oligopoly theory, Tariff jumping hypothesis, Obsolescing bargain theory. The three models of internalisation strategy. Comparative Management: Importance and scope; Approaches of comparative management; management styles and practices in US, Japan, China, Korea, India.

UNIT-II

Strategy and MNC's: The role of strategy, Transferring core competencies, Realizing location economies, Realising experience curve economies, Pressures for cost reductions. Local responsiveness, Multinational strategy, International strategy and Global strategy. Modes of entry and strategic alliances. Organizational structure: Vertical and horizontal differentiation. Control and co-ordination in MNC's.

UNIT-III

Marketing management in MNC's: Product, price, distribution and communication strategy. Operations management in MNC's: Where to manufacture: Country factors, technology factors, customization and cost efficiency, locating manufacturing facilities. Transfer of knowledge from home country to host country: parent subsidiary relationship, new product development. Human resource management in MNC's: HR policies in MNC's, types of staffing policy, employing expatriates in MNC's, Labour relations in MNC's. Financial management in MNC's: Double taxation relief, provisions of Indian Income Tax Act for double taxation, Transfer pricing.

UNIT-IV:

Ethics and social responsibility in MNC's: Stakeholders expectations, Environmental management in MNC's, dealing with corruption and bribery, Marketing issues, Human rights violation by MNC's. Emerging issues in MNC's: Challenges of globalisation towards transnational companies, Enterprise risk management in MNC's. Indian MNC's: Strategic issues for Indian MNC's- Evolution of Indian companies, moving up the value curve, overcoming the liabilities of Indianness, Role of Government.

Recommended Readings:

1. Helen Deresky, International Management, Pearson Education.
2. Hodgetts, "International Management", Tata McGraw Hill, New Delhi.
3. Nagandhi, Anant.R, "International Management", Prentice Hall of India Ltd., New Delhi.
4. Koontz and Whelrich, "Management: The Global Perspective", Tata McGraw Hill, New Delhi.
5. Adhikary, Manab. "Global Business Management", Macmillan, New Delhi.
6. Thakur, Manab, Gene E. Burton, and B.N. Srivastava, "International Management: Concepts and Cases", Tata McGraw Hill, New Delhi.
7. Christoppher Bartlett and Sumantra Ghoshal, "Transnational Management: Text and Cases", Tata McGraw Hill, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

International Trade Theory and Practice

Course Code: 20IMG24GI5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: define the concept of International Business environment.
CO2: evaluate the models & theories of international trade.
CO3: describe the concept of country risk analysis and responsibilities of International trade.
CO4: analyze the economic crisis of developing countries.

UNIT-I

Evolution of International Trade: Introduction, Interdependence of Countries, Internal Trade vs. International Trade, Classical Theory of International Trade Theory of Absolute Cost, The Ricardian Theory of Comparative Costs, Gains from International Trade, Comparative Costs Doctrine Expressed in Terms of Money, Evaluation of the Classical Theory of International Trade, General Equilibrium Theory of International Trade, Exchange Rate Mechanism and International Trade, A Complex Model of Ohlin, Criticisms of the Modern Theory of International Trade, Superiority of the Modern Theory of International Trade, Porter's National Competitive Advantage Theory, Product Life Cycle Theory.

UNIT-II

Regional Economic Groupings: Concept of Trade Barriers ,Objectives of Trade Barriers, Types of Tariff Trade Barriers ,Types of Non-tariff Trade Barriers ,Tariff Trade Barriers vs. Non-tariff Trade Barriers, Effects of Trade Barriers, Concept of Regional Economic Groups , Types of Regional Economic Groups , Positive Effects of Regional Economic Groups, Negative Effects of Regional Economic Group, Major Trade Blocs ,Free trade vs. protection, economic effects of tariff, tariff retaliation, anti-dumping/countervailing duties; export subsidies;

UNIT-III

FDI and MNCs: Concept of Multinational Corporations (MNCs), Merits of MNCs, Demerits of MNCs, MNCs in India, Concept of Foreign Direct Investment (FDI), Role and Functions of FDI in Developing Countries, Factors Influencing FDI, FDI Operations in India, FDI Policy in India , Make in India, Foreign Investment Promotion Board (FIPB), Foreign Investment Promotion Council (FIPC), Indian Joint ventures abroad; Project and consultancy exports, Policy on foreign collaborations and counter trade arrangements.

UNIT-IV

India's Foreign Trade: Introduction, Significance or Merits of Foreign Trade, Demerits of Foreign Trade, Growth of India's Foreign Trade, Direction of India's Exports, Direction of India's Imports, Major Exports (Commodities) of India, Major Imports (Commodities) of India, Major Exports (Services) of India India's Share in World Trade and FTP 2015-2020, Prospects for India's Foreign Trade Development, Challenges to India's Foreign Trade Development.

Recommended Readings:

1. Paul R. Krugman, International Trade: Theory and Policy, Pearson Education.
2. Export-Import Procedure and Documentation, Jain. S. Khushpat, Jain.V. Apexa, Himalaya Publishing House.
3. B Gupta, R.K. "Anti-dumping and Countervailing Measures", Sage Publications, New Delhi.
4. Verma, M.L. "International Trade", Commonwealth Publishers, Delhi.
5. Varsheny R.L. and B. Bhattacharya, "International Marketing Management", Sultan Chand and Sons, Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Integrated Marketing Communication

Course Code: 20IMG24GM1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand various marketing cues
CO2: create an communication campaign for marketing purpose
CO3: understand various kind of media to be utilized in marketing communication
CO4: find out solution of communication needs

UNIT-I
Introduction – Concept of marketing communication, marketing communication mix, factor affecting marketing communication mix, drivers of integrated marketing mix; models of marketing communication – Blade Box Model, AIDAS model, Lavidge Steiner model, DAGMAR model, PCB model; marketing communication planning process

UNIT-II
Managing the Marketing Communication Process – Analysis of promotional opportunities, concepts of segmentation and target marketing, promotional strategy of formulation and competitive positioning, determination of promotional objectives, deciding promotional appropriation, integrating marketing communication programme, commissioning and contracting external resources

UNIT-III
Advertising and Media Planning – Advertising plan, creative strategy, advertising appeal, creative formats, stages of creative strategy – idea generation, copy writing, layout, copy testing and diagnosis; media planning – traditional and contemporary media; media objectives – reach, frequency, cost etc.; media strategy, media scheduling, media planning models, key issues in advertising – comparative advertising, web advertising; advertising agency – functions and types, outdoor advertising

UNIT-IV
Wider Issues and Dimensions – Sales promotions, personal selling, direct marketing, public relations, publicity and corporate advertising, unconventional promotional media, marketing communication budgeting, measuring promotional performance, global marketing communication, legal and ethical issues in integrated marketing communication

Recommended Readings:

1. Shah, Kruti and Alan D'Souza, Advertising and Promotion – An IMC Perspective, Tata McGraw Hill, New Delhi
2. Belch, George and Belch, Michael; Advertising and Promotion, Tata McGraw Hill, New Delhi
3. Moriarty, Sandra and Wells, William. Advertising and IMC, Pearson Education.
4. Jethwaney, Jaishree and Jain, Shruti; Advertising Management; Oxford University, New Delhi
5. Kenneth E. Clow, Integrated Advertising, Promotion and Marketing Communications, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Marketing Research

Course Code: 20IMG24GM2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: explain the meaning & role of Marketing Research
CO2: formulate the hypotheses using exploratory research techniques like literature survey, experience survey & analysis of cases.
CO3: design questionnaires & observation forms for different marketing research situations
CO4: explain the Scaling techniques.
CO5: explain the experimentation in Marketing Research and interpretation of data.

UNIT-I
Introduction to Marketing Research: Importance, Nature and Scope of Marketing Research, Types of Marketing Research; Introduction to Marketing Research Industry; Marketing Intelligence: Marketing Information Systems, Decision Support Systems

UNIT-II
Marketing Research Process: Problem Identification and Definition; Research Designs; Exploratory: Qualitative Research; Descriptive: Survey and Observation; Data Collection: Primary and Secondary Data; Questionnaire Design.

UNIT-III
Attitude Measurement and Scaling Techniques - Introduction to Measurement Scales, Sampling Plan: Universe, Sample Frame and Sampling unit, Sampling Techniques, Sampling and Non-sampling errors, Sample size determination.

UNIT-IV
Data Analysis: Univariate, Bivariate and Multivariate Data Analysis; Report Writing; Market Research Applications: Product Research, Advertising Research, Sales and Market Research; International Marketing Research.

Recommended Readings:

1. Malhotra N., K. & Dash S., Marketing Research: An Applied Orientation, Pearson.
2. Churchill, Lacobucci & Israel, Marketing Research: A South Asian Perspective, Cengage Learning
3. Donald S. Tull & Del I. Hawkins, Marketing Research: Measurement and Method, Prentice Hall.
4. Boyd. H.W. , Westfall, R., & Starsh, S.F., Marketing Research: Text and Cases, Richard D. Irwin, Boston
5. Chisnall, P. M., The Essence of Marketing Research, Prentice Hall, New Delhi.
6. Churchill, Gilbert A., Basic Marketing Research, Dryden Press, Boston.
7. Beri, G., Marketing Research, Tata McGraw Hill, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Product and Brand Management

Course Code: 20IMG24GM3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand applications of new product management, planning and policy techniques, essentials of branding and approaches to effective branding strategy.
CO2: understand the important issues in planning and evaluating product and brand strategies.
CO3: understand contemporary issues in product and branding development and sustainability.

UNIT-I
Branding terminology, basic branding concepts- brand awareness, brand personality, brand image, brand identity, brand loyalty, brand equity, major branding decisions: selecting a brand name, brand extension decision, family versus individual brand names, multiple branding, private versus national branding, importance of branding

UNIT II
Branding challenges and opportunities, concept of brand equity, sources and benefits of brand equity, customer based Brand equity, designing marketing programme to build brand equity, measurement of brand equity, Strategic brand management process, concept of Brand positioning and repositioning, Identifying and establishing brand positioning and values.

UNIT III
Planning and implementing brand marketing programmes, designing marketing programs, measuring and interpreting brand performance, Legal aspects of Branding, Copyright, Trademarks and IPR, designing and implementing branding strategies; Brand building and communication, E- Branding, handling brand name changes

UNIT IV
New products and brand extension, evaluating brand extension opportunities, reinforcing brands, revitalising brands, managing brands over geographic boundaries and market segments, rationale for going international, global marketing programs- advantage and disadvantage, standardisation versus customisation, global brand strategy. Branding in rural marketing, branding in specific sectors: retail, industrial, service brands

Recommended Readings:

1. Kevin lane Keller, Strategic Brand Management, Pearson Education.
2. David A Aaker, Managing Brand Equity, New York, Free Press.
3. Don Cowley, understanding brands, Kogan page
4. J.N. Kapferer, Strategic Brand Management, Free Press.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Sales and Distribution Management

Course Code: 20IMG24GM4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the concepts of sales and distribution management.
CO2: appreciate various facets of job of sales manager.
CO3: make and implement decisions for sales and distribution management.
CO4: build knowledge, understanding, and skills in Sales and Distribution management.
CO5: develop and implement Sales and Channel management strategies.
CO6: analyze decision alternatives and criteria in the context of realistic problem situations in Sales and Channel management.

UNIT-I
Sales Management: Role of Sales Management in Marketing, Nature and Responsibilities of Sales Management, Modern Roles and Required Skills for Sales Managers. Theories of Selling. Sales Planning: Importance, approaches and process of sales planning; Sales forecasting; Sales budgeting. Sales Organization: Purpose, principles and process of setting up a sales organization; Sales organizational structures; Field sales organization; determining size of sales force.

UNIT-II
Territory Management: Need, procedure for setting up sales territories; Time management; Routing. Sales Quotas: Purpose, types of quotas, administration of sales quotas. Managing the Sales-force: Recruitment, selection, training, compensation, motivating and leading the sales-force; Sales meetings and contests.

UNIT-III
Control Process: Analysis of sales, costs and profitability; Management of sales expenses; evaluating sales force performance; Ethical issues in sales management.

UNIT-IV
Distribution Channels: Role of Distribution Channels, Number of Channels, Factors Affecting Choice of Distribution Channel, Channel Behaviour and Organization, Channel Design Decision; Channel Management Decisions; Distribution Intensity; Partnering Channel Relationship.

Recommended Readings:

1. Still, Cundiff, Govoni and Sandeep Puri, Sales and Distribution Management, Pearson Education.
2. Anderson R, Professional Sales Management, Englewood Cliff, New Jersey, Prentice Hall, India.
3. Spiro, Rosann L., Gregory A. Rich, and William J. Stanton, Management of a Sales Force, McGraw-Hill Irwin, Boston.
4. Dalrymple, Douglas J., and William L., Sales Management: Concepts and Cases, New York, NY: Wiley
5. Panda, T. K., Sahadev , S., Sales And Distribution Management, Oxford Publishing, India
6. Hughes, G. David, Daryl McKee, Charles H. Singler, Sales Management: A Career Path Approach, Cincinnati, OH: South-Western College Publishing
7. Peppers, D. and Rogers, M., 'The short way to long-term relationships'. Sales and Marketing Management

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Industrial Marketing

Course Code: 20IMG24GM5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: compare the differences and similarities between challenges faced in Consumer Marketing and industrial marketing.
CO2: recommend appropriate Segmentation, Targeting and positioning strategy for an industrial brand.
CO3: forecast demand and develop the Marketing Plan for an industrial product.
CO4: apply buying behavior concepts to design industrial products & services, set prices and distribution and logistics strategies to achieve the Marketing Objective.
CO5: design Marketing Mix for industrial services to achieve planned marketing objective

UNIT-I

Industrial Marketing: concept, nature and scope of industrial marketing; Difference between industrial and consumer marketing; Economics of industrial demand; understanding industrial markets and environment: Types of industrial customers, Classification of industrial products, Marketing implications for different customers and different product types, Purchase practices of industrial customers, Environmental analysis in industrial marketing.

UNIT-II

Organisational Buying and Buyer behaviour: Buyer motives, Phases in industrial buying decision process, Types of buying situations, Interpersonal Dynamics of industrial buying behaviour, Buyer-Seller relationship, Models of industrial buying behaviour, Industrial Marketing Research process; Industrial market segmentation, target marketing and positioning.

UNIT-III

Product Strategy: Meaning and Concept of an industrial product, Determinants of product mix, Industrial Product Life Cycle and strategies, New product development process; Marketing strategies for product related services and pure services; Industrial pricing decisions: Factors influencing pricing decisions, Pricing strategies, Pricing methods.

UNIT-IV

Industrial distribution channels and marketing logistics: Distinctive nature of industrial distribution channels, Factors affecting the nature of industrial channels, Role of intermediaries, Types of industrial intermediaries, Channel design decisions, Role of logistics and customer services in industrial marketing, Major components/Major decision areas of logistics, Total cost approach; Industrial marketing communication: Role of personal selling and direct marketing in industrial marketing, Personal selling process, Importance of advertising, and sales promotion in industrial marketing, Sales force management, Strategic planning, Implementing and Controlling in industrial marketing.

Recommended Readings:

1. Reeder, Robert R. Industrial Marketing: Analysis, Planning and Control. Englewood Cliffs. New Jersey, Prentice Hall Inc.
2. Havalder, Krishna K., Industrial Marketing, TMH, New Delhi
3. Brennan, R, Canning, L & McDowell, R, Business to Business Marketing, Sage Publications Ltd.,
5. Hill, Richard, etc. Industrial Marketing, Homewood Illinois, Richard D. Irwin.
6. Webster, F E. Industrial Marketing Strategy, New York, John Wiley.
7. Ghosh, P.K, Industrial Marketing, Oxford University Press.
8. Mukerjee, Industrial marketing, Excel Books India

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Transportation Management
Course Code: 20IMG24GO1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: appreciate the role of Transportation and Warehouse Management
CO2: explain essentials of statutory requirements related to Logistics Management
CO3: explain transport infrastructure and trade requirements in Logistics Management

UNIT-I
Growth of Urbanization and Problems of Transportation: Transport- Challenges and Limitations; Government Activities in Transportation; Functions of Transport Accessibility/Connectivity, Mobility Inter relations of Transport Economic cost and trade, Geography and technology, Social, cultural and recreational development of Information and Communication Technology

UNIT-II
Transportation Systems - Planning, Operation and Management Trip Generation and Distribution: Load Planning: Transportation Modes and their Selection; Land Use theory; Physical Theories, Economic Theories Utility Maximization; Choice Theory, Logit Model, Gravity Model, Generalized Cost; Elements of Traffic Flow, Generalized Car Following Theory, Green shields Theory

UNIT-III
Early transport and trade, Development of Sea ports, canal transport and the railways, Road building and motorization, Development of airports and air transport; Transport Networks,
Features of networks – nodes and links, Multimodalism and choice in transport, Supply chain, Inter modalism, Transport Infrastructure

UNIT-IV
Sequential Travel Demand Forecasting Models: Future Developments in Transportation; Motor Vehicle Act 1988 and its Impact on Urban Transport System: Emission Norms.

Recommended Readings:

1. Baerwal, J E., Transportation and Traffic Engineering Handbook. Englewood Cliffs, Prentice Hall Inc.
2. Khisty and lall, Transportation: An Introduction, Pearson Education.
3. Bell, G. et al., The Business of Transport. Plymouth, McDonald and Evans.
4. Dickey, J W., Metropolitan Transportation Planning, Tata McGraw Hill.
5. Grey, G E. and Hole, L A., Public Transportation Planning: Operations and Management;
6. Englewood Cliffs, Prentice Hall Inc.
7. Gupta, M P., Metropolitan Transportation System, National.
8. Papacostas. C S., Transportation Engineering and Planning, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Technology Management
Course Code: 20IMG24GO2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: appreciate the role of technology, innovation and new product management in both corporate and public sector.
CO2: emphasize on strategic aspects of decision making involved in process and technology choices, investment options, level of technology.

UNIT I
Introduction: Definition and Characteristics of Technology, Market Based and Resource Based view, Concept and significance of management of technology, Dynamics of Technological Change: Forms of technological change, Process of Technological Change; Innovation: Components of Innovation, Innovation Dynamics at the Firm Level, recent developments in Technological environment - Globalization, Time Compression, Technology integration, Induced and Autonomous changes in the Technological environment, Competitive advantages through new technologies.

UNIT II
Technology supply and Research and Development Management**:** Sources of technology, Process of new product development; managing hi-tech products: Strategy to avoid product failure in market. Principles and Process of Product Development; Managing Rand D Organization –issues and recent trends, Linkage between technology, development and competition, management of Intellectual Property Rights in context of technology management, strategic issues in managing IPR

UNIT III
Technological Forecasting: Meaning, significance of Technology forecasting, techniques of Technology forecasting: Exploratory and normative technique; Process and application of techniques like Delphi, Growth Curves, S- curve, Pearl Curve, Gompertz curve: Relevance Tree, Morphological Analysis, Mission Flow Diagram

UNIT IV
Meaning and Importance of Technology Intelligence; Technology Strategy: Meaning and Key
Principles Underlying Technology Strategy, framework for formulating technology strategy Technology Strategy Types; Linkage of technology strategy with business strategy, Issues in technology strategy

Recommended Readings:

1. Narayanan, V. K., Managing Technology and Innovation for Competitive Advantage, Pearson Education.
2. Trott, Innovation Management and New Product Development, Pearson Education.
3. Khalli, T., Management of Technology, McGraw-Hill
4. Betz. F., Strategic Technology Management, McGraw-Hill
5. Lowell W. S., Managing Technology – The Strategic View, McGraw Hill.
6. Schilling Strategic Management of Technological Innovation, McGraw-Hill

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Warehouse Management and Inventory Control
Course Code: 20IMG24GO3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the basic concepts and various functions of Warehouse and Inventory control.
CO2: understand various types of warehouses and Inventory and their advantages.
CO3: identify material storage systems and material handling equipment.
CO4: understand Inventory management and classification of various types of Inventories.
CO5: understand the importance of IT in Warehousing.

UNIT I
Warehouse management: meaning and significance; warehouse organization: requisitions and replenishment of materials, receipt and inspection of materials, issue of materials, stocktaking, discrepancies and their resolution, control of tools, surplus, and scrap materials, storage and handling practices of materials

UNIT II
Computerization of warehouse activities, performance evaluation of stores activities, iso standards and warehouse activities, warehouse location, layout, and facilities planning, warehouse security, safety, and maintenance

UNIT III
Inventory Management: inventory concepts, pressures for low inventory, pressures for high inventory, types of inventory – seasonal, decoupling, cyclic, pipeline, safety stock; inventory costs; inventory control systems: issues in the P and Q systems of inventory control; The Basic Economic Order Quantity Model, Production Quantity Model, Quantity Discounts, Reorder Point, Safety Stocks, Service Level, Order quantity for periodic inventory system, Order quantity with variable demand

UNIT IV
Just-In-Time: Principles of just-in-time, Core logic of JIT, Main features for stocks, Achieving just-in-time operations, and other effects of JIT, Benefits and disadvantages of JIT, Comparison with other methods of inventory management. KANBAN as a control tool. Vendor managed inventory; Make or Buy Decisions: Factors influencing Make Or Buy Decisions-cost, quality, capacity core v/s noncore, management strategy. Evaluation of performance of Materials function: cost, delivery, quality, inventory turnover ratio methodology of evaluation, Use of ratios and analysis like FSN: Fast slow, Nonmoving, HML-High Medium, Low, XYZ. Materials Management in JIT Environment

Recommended Readings:

1. Saxena, J.P., Warehouse Management and Inventory Control**,** Vikas Publication
2. Bose, C., Inventory Management, PHI
3. Mahadevan, B., Operations Management: Theory and Practice, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Sourcing Management
Course Code: 20IMG24GO4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: apply the basic concepts of Sourcing.
CO2: discuss each stage of Sourcing process.
CO3: explain factors driving the need to source and types of Sourcing.

UNIT I
Introduction to Global Sourcing, Trends in Global Sourcing, Supply Management-Strategic Sourcing, Negotiation process, Methods of sourcing, Performance Measurement and Evaluation (Concepts and Metalcraft Case), Sourcing Risk Management identifying, assessing, and controlling risk

UNIT II
Supplier Evaluation and Selection, locate, develop, qualify, and employ suppliers, Master supply agreement, Analytical Tools in Sourcing (Total Cost of Ownership (Wire Harness case), Pricing Analyses (Plastic Shield case), score card method, supplier research and market analysis

UNIT III
Analytical Tools in Sourcing (Foreign Exchange Currency Management, Learning Curve, Quantity Discount Models-Integrative Pacific Systems Case (Sourcing Risk, Supplier Financial Analysis)-Electronic Sourcing, solicitation method

UNIT IV
Understanding the environment, concept of sustainability, green sourcing, global and national standards, major sustainability issues, cultural diversity and sourcing process, operational alignment with sourcing strategy.

Recommended Readings:

1. Sunil Chopra, Supply Chain Management, Pearson Education.
2. Fred Sollish MS, John Semanik: Strategic Global sourcing, Wiley
3. Daniel Senft: International Sourcing, Springer.
4. Shah, J. "Supply Chain Management", Pearson Publication
5. Donald J Bowersox, Dand J Closs, M Bixby Coluper, "Supply Chain and Logistics Management", TMH
6. Sahay B.S."Supply Chain Management", Macmillan, New Delhi.
7. Agarwal D.K. "A Text Book of Logistics and Supply chain management", Macmillan, New Delhi.
8. Raghuram G. "Logistics and Supply Chain Management", Macmillan, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Supply Chain Analytics

Course Code: 20IMG24GO5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: cope with ever increasing amounts of data and information generated in all kinds of formats and representations, both internally and externally of supply chain.

CO2: acquire more knowledge of their customers, of their economic environment and of their own internal operations

CO3: take full advantage of available data for making smarter decisions, for creating value, and for making better use of resources in Supply chain management

CO4: support business insights and to move to fact-based management by relying on data and on supply chain analytics.

UNIT-I

Warehousing Decisions: Mathematical Programming Models, P-Median Methods, Guided LP Approach, Balmer-Wolfe Method, Greedy Drop Heuristics, Dynamic Location Models, Space Determination and Layout Methods

UNIT-II

Inventory Management: Inventory aggregation Models, Dynamic Lot sizing Methods, Multi-Echelon Inventory models, Aggregate Inventory system and LIMIT

UNIT-III

Transportation Network Models, Notion of Graphs, Minimal Spanning Tree, Shortest Path Algorithms, Maximal Flow Problems, Multistage Trans-shipment and Transportation Problems, Set covering and Set Partitioning Problems, Traveling Salesman Algorithms, Advanced Vehicle Routing Problem Heuristics, Scheduling Algorithms-Deficit function Approach and Linking Algorithms

UNIT-IV

Analytic Hierarchy Process, Data Envelopment Analysis, Risk Analysis in Supply Chain, Measuring transit risks, supply risks, delivering risks, Risk pooling strategies, Fuzzy Logic and Techniques-Application in SCM

Recommended Readings:

1. Sunil Chopra and Peter Meindel. Supply Chain Management: Strategy, Planning, and Operation, Pearson Education.
2. Jeremy F. Shapiro. Modeling the Supply Chain. Duxbury Thomson Learning
3. D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar, Designing and Managing the Supply Chain concepts, Strategies and Case studies, Third Edition, Tata McGraw Hill, New Delhi
4. D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, Managing the supply chain: the definitive guide for the business professional. McGraw-Hill.
5. Sridhar Tayur, Ram Ganeshan, Michael Magazine (editors). Quantitative Models for Supply Chain Management. Kluwer Academic Publishers
6. Hyndman, R. J., and Athanasopoulos, G., Forecasting: principles and practice, Online Open Access Textbooks, https://www .otexts.org/fpp
7. James, G., Witten, D., Hastie, T., and Tibshirani, R., An introduction to statistical learning: with application in R, New York: Springer
8. Makridakis, S., Wheelwright, S. C., and Hyndman, R. J., Forecasting methods and applications. John Wiley and Sons.
9. Janat Shah, Supply Chain Management, Pearson Education.
10. Nahmias, S., Production and operations analysis, McGraw-Hill/Irwin, Sixth Edition.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal mark

Public Policy Evaluation
Course Code: 20IMG24GP1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: analysis practical problems of government, communities and regions
CO2: sense alternative approaches to the examination of public policy and of their respective strengths and limits.
CO3: understand complexity of policy evaluation in terms of mixes of values, interests, competing orientations, and other factors
CO4: develop critical thinking about public policy issues and the ability to conduct professional analyses

UNIT-I
Policy Evaluation: Introduction, concept of Policy Evaluation, evaluation types: Performance appraisal, Audit, Result evaluation, Impact assessment; functions of evaluation; criteria for evaluation; issues of the acceptability of evaluation results; problems in evaluation policy; constraints of public policy evaluation.

UNIT-II
Approaches to policy evaluation and policy impact: Introduction, Evaluation as rational analysis, Evaluation as a tool of HRM, Multiplist approach, Design approach, Negotiation approach, evaluating impact

UNIT-III
Criteria for evaluation: Efficiency, Effectiveness, Adequacy, Equity, Responsiveness; Evaluating Policy: Building framework for policy analysis, Evaluation Research, Cost-Benefit Analysis, Funding for policy analysis, Policy monitoring: Techniques for monitoring-Technical performance, time performance, cost performance.

UNIT-IV
Ethics and Public Policy, Policy performance: Evaluating Impact, -Purpose of impact assessment, Methods of impact assessment; Evaluating Agencies; Globalization of National policy-making: impact of global events on national policy agenda.

Recommended Readings:

1. R.K. Sapru, Public policy: Formulation, Implementation and Evaluation, Sterling Publisher Private Limited, New Delhi.
2. PrabirKumar De, Public Policy and Systems, Pearson Education, New Delhi.
3. R.K. Sapru, Public policy: Art and craft of policy analysis, PHI Learning Private Limited, New Delhi.
4. Stuart S. Nagel, Handbook of Public Policy Evaluation, Sage Publications, New Delhi.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Social Campaign Promotion

Course Code: 20IMG24GP2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the need for social marketing
CO2: understand of social campaigns and its importance
CO3: understand about the promotional aspects of social campaigns
CO4: understand about the social media for positive and social purposes
CO5: understand about the financial aspects of social campaigns.

UNIT-I
Social Marketing: Concept, Scope, and Comparison with Commercial Marketing, Approaches to influence public Behaviour; Social Marketing Planning Process; Elements of Campaign; Introduction to social entrepreneurship, funding for social endeavours.

UNIT-II
Social Marketing Environment: Campaign Focus and purpose, Mapping the Internal and External Environments; Establishing Target Audiences: Target Marketing.

UNIT-III
Setting Campaign Objectives and Goals: Behaviour Objective, Knowledge Objective, Belief Objective; Social Marketing Strategies: Product in social marketing, Price of a social marketing product.

UNIT-IV
Promotional Strategies: Types of Media Channels, Choosing Media Vehicles, Timings and Factors Influencing media strategies; Plan Evaluation and Monitoring: Outcome measures, Process Measures; Establishing Budgets and finding Funding Sources.

Recommended Readings:

1. Philip Kotler, Ned Roberto, Nancy Lee, "Social Marketing: Improving the quality of life", Sage Publication.
2. Nancy R. Lee, Philip Kotler, "Social Marketing; Influencing Behaviour for Good", Sage Publication.
3. Philip Kotler, Eduardo L. Roberto, Ned Roberto, "Social marketing: strategies for changing public Behaviour" Free Press.
4. R. Kraig Lefebvre, "Social Marketing and Social Change", Wiley.
5. Hong Cheng, Philip Kotler, Nancy R. Lee, "Social Marketing for Public Health: Global Trend and Success Stories", Jones and Bartlett Publishers, LLC

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Sustainable Development

Course Code: 20IMG24GP3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: comprehend the meaning of sustainable development.
CO2: understand the international and long-term dimensions of sustainable development.
CO4: understand methods in the field of sustainable development
CO5: relate to evaluate various sustainability discourse and their assumptions from different actors' perspectives

UNIT I

Meaning and Scope, Corporate Social Responsibility and Corporate Sustainability, Sustainability Terminologies and Meanings, Why is Sustainability an Imperative, Sustainability Case Studies, Triple Bottom Line (TBL)

UNIT II

Corporate Sustainability Reporting Frameworks, Global Reporting Initiative Guidelines, National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business, International Standards, Sustainability Indices, Principles of Responsible Investment, Challenges in Mainstreaming Sustainability Reporting, Sustainability Reporting Case Studies.

UNIT III

Legal Framework, Conventions, Treaties on Environmental and Social Aspects, Principle of Absolute Liability. UN Conference on Human Environment, UN Environment Programme, Brundtland Commission, UN Conference on Environment and Development, Rio Declaration on Environment and Development, Statement of Forest Principles, UN Framework Convention on Climate Change, Convention on Biological Diversity, Kyoto Protocol, Bali Roadmap, UNIT-ed Nations Conference on Sustainable, Development (Rio+20), Millennium Development Goals, International Labour Organization, Environmental Protection in India, Ecomark

UNIT IV

Contemporary Developments - Integrated Reporting, Rule in Rylands v. Fletcher, Applicability of Rylands Doctrine in India, Industrial Disasters, Hazardous or inherently dangerous industry, Departure from Rylands v. Fletcher, Water Pollution, Corporate Manslaughter and Corporate Homicide Act 2007, UK.

Recommended Readings:

1. Valesquez, Business Ethics: Concepts and Cases, Pearson Education.
2. A.C Fernando, Business Ethics, Pearson Education
3. John F. Steiner and George A. Steiner, Business, Government, and Society: A Management Perspective, Text and Cases, 2012, McGraw Hill, New Delhi.
4. Andrew Crane and Dirk Matten, Business Ethics: Managing Corporate Citizenship and Sustainability in The Age of Globalization, Oxford University Press, UK.
5. Allenby, B R 1993, Industrial Ecology, New York, Prentice Hall.
6. Hand Book of Sustainable Development, 2nd Edn, Cheltenham, UK, Edward Elgar
7. Boatright, J R, 2012, Ethics and the Conduct of Business, Pearson Education.
8. Brown, M T, 2005, Corporate Integrity: Rethinking Organizational Ethics and Leadership, Cambridge: Cambridge University Press.
9. Crane, A. Matten D. and Moon, J, 2008, Corporation and Citizenship, Cambridge: Cambridge Univ. Press.
10. Crane, A . 2000, Marketing, morality and natural environment, London, Routledge.
11. Parkinson, J.E. 1993, Corporate power and responsibility, Oxford University Press
12. Part, A. 2009, Hijacking sustainability, Cambridge, MA, MIT Press
13. Yaziji, M. and Doh J. 2009, NGO and Corporations: Conflict and Collaboration, Cambridge: Cambridge University Press.
14. Zadek, S. Pruzan, P. and Evans, R. (eds) 1997, Building Corporate Accountability, Emerging Practices In Social And Ethical Accounting, Auditing And Reporting, London, Earthscan.

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Rural Development

Course Code: 20IMG24GP4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: critically analyze with regard to shifts of rural development
CO2: understand implications on the livelihoods of the poor and schemes to empower them
CO3: understand the prospects and problems of rural development in India
CO4: understand Panchayati Raj system in India
CO5: understand of working of institutions for rural development and management

UNIT I

Introduction: Rural Development: Concept, Elements, Importance and Scope - Approaches: Sectoral Approach, Area Approach, Target Group Approach, Participatory Approach, Integrated Approach - Strategies of Rural Development- Rural Management: Scope and Significance of Rural Management - Economic perspectives of Rural Development: Lack of access to assets, Micro finance, Capital market - Sectoral Issues in Rural development: Agriculture, Industries, Land Reforms

UNIT II

Institutions for Rural Development and Management: Structure, Functions and Role in Rural Development National level Institutions: NITI Aayog, Ministry of Rural Development, Ministry of Panchayati Raj, NIRD, CAPART and NABARD; State Level Institutions: State Planning Board, State Institute of Rural Development and Kerala Institute of Local Administration - District and Other Level Institutions: District Planning Committee; Panchayati Raj Institutions - Community Based Institutions - Scientific inputs and support from the Institutions like ICAR, ISRO, CSIR Institutes etc.

UNIT III

Rural Development Information System (RDIS): Management Information System - Impact of MIS on organization - RDIS: RD professionals" responsibility in phase of RDIS development - RDIS Planning and RDIS Implementation - Emerging Trends in RDIS

UNIT IV

Major Development and Welfare Programmes - Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGA) – Schemes for self-employment of the rural poor, Schemes for Housing to the rural poor- Rural Health Mission Schemes - Sanitation Programme - Drinking water supply programme - Backward Region Grant Fund (BRGF) - Pradhan Mantri Grameen Sadak Yojana (PMGSY) - Integrated Wasteland Development Programme (IWDP) - Provisions of Urban Amenities in Rural Areas (PURA) - PPP/ CSR Initiatives in Rural Development

Recommended Readings:

1. Prasad, B.K.(2003), Rural Development: Concept, Approach and Strategy, New Delhi: Sarup and Sons.
2. Singh, Katar. (2009). Rural Development - Principles, Policies and management, New Delhi: Sage.
3. Srivastava, Madhuri and Alok Kumar Singh (Eds.) (2008), Rural development in India: Approaches, strategies, and programmes, New Delhi: Deep and Deep Publications.
4. Sundaram, Satya. (2002), Rural Development Mumbai: Himalaya.
5. Government of India. (2012), Greening Rural Development in India, New Delhi: Ministry of Rural Development and UNDP.
6. Singh, Katar and R S Pundir. (2000), Co-operatives and Rural Development in India, IRMA. India Rural Development Report 2013-14, Hyderabad: Orient Blackswan.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Indian Social and Political System

Course Code: 20IMG24GP5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand decipher the workings of the Indian constitution and political system
CO2: explain the basic ideas and concepts of political science
CO3: identify sociological institutions
CO4: develop an understanding of the relationship between individual and the society
CO5: understand structure of societies

UNIT-I

Significance of the Indian Model of Political System; Nationalist Movement - Socio-economic and philosophical foundation of Indian Constitution; Fundamental rights - Directive principle of state policy; Federalism and Centre-State Relations. Prime Minister - Cabinet and Parliament; Judiciary and Judicial Review; Role of Civil Services - Role of Caste; Religion, Language and Regionalism - Concept of Dominant Caste - Morris Jone's- Three Idioms of Indian Politics

UNIT-II

Political Science- Politics, Political Philosophy, Political Thought, Political Theory, Political Science-Approaches, Debates and Trends, Relationship with Social sciences.

UNIT-III

Sociology: Nature, Scope and Significance; Relationship with History, Economics, Political science, Anthropology and Psychology; Basic Concepts: Society, Community, Association, Social structure, Status and Role, Norms and values. Indian Social Institutions: Kinship, Family, Marriage; Caste and its Changing Dimensions.

UNIT-IV

Societies: Types and Characteristics- Tribal, Rural, Urban, Industrial and Post-Industrial; Processes of Social Change: Characteristic Features of Industrialization, Modernization, Globalization; Social Stratification: Concept and Bases; Forms- Caste, Class, Power and Gender; Social Issues and Problems: Secularism and Religious Minorities, Inequality of Caste, Divorce; Problems of Aged, Corruption

Recommended Readings:

1. Himanshu Roy, Indian Political System, Pearson Education.
2. Ahuja, Ram (2001): Indian Social System, New Delhi: Rawat Publication
3. Fulcher and Scott (2003: Sociology, New York: Oxford University Press.
4. Rajni Kothari, Politics in India, Orient Longman Private Limited, New Delhi
5. Ahuja, Ram (2000): Social Problems in India, New Delhi: Rawat Publications
6. N.D. Arora, Political science, Tata McGraw Hill.
7. Bottomore, T.B. (1972): Sociology: A Guide to Problems and Literature, Bombay: George Allen and Unwin (India).
8. Fulcher and Scott (2003: Sociology, New York: Oxford University Press
9. Inkeles, Alex (1987): What is Sociology? New Delhi: Prentice-Hall of India
10. Ahuja, Ram (1997): Society in India: Concept, Theories and Recent Trends, Jaipur: Rawat Publication

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Economics of Business Strategy

Course Code: 20IMG24GB1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: use principles of economics and microeconomic theory to analyze strategic issues faced by managers as strategists in modern business enterprises.
CO2: appreciate the inherent strengths and limitations of using economic theory in managing a business.
CO3: have an understanding through use of economic theory as to why business follows particular strategic decisions in different industries.
CO4: demonstrate the ability to articulate and assess problems based on the modelling framework used in the course to appreciate a strategy/structure relation.

UNIT-I
Theory of the Firm: Its rationale, Objectives, Boundary, Change in boundary (Mergers and acquisitions), Resource Based view of Firm, Firm as the source of Profit, Vertical Integration and Conglomerate diversification, Internationalization.

UNIT-II
Architecture: Internal and external architecture, designing and management of architecture, Evaluation of performance, corporate Governance, Reputation, Knowledge, Rent Generation and Management.

UNIT-III
Competitive Sustainability: Origin of Competitive Advantage, Creative Destruction, Innovation, Growth, Changing Product Portfolio, entrepreneurship etc.

UNIT-IV
Public Policy: Regulation and Privatization, Competition law, Competition Commission of India.

Recommended Readings:
1. Andreu Mas- Colell, Michael D. Whinston & Jerry R. Green, Microeconomic Theory, Oxford University Press.
2. Trimorthy C. G. Fisher& Robert G. Waschik, Managerial Economics: A Game Theoretic Approach, Routeledge.
3. Paul Milgram & John Roberts, Economics, Organization & Management, Prentice Hall.
4. D.N. Sengupta & Anandya Sen., Economics of Business Policy, Oxford University Press.
5. Steven E Landsberg, Price Theory & Application, Dryden.
6. Walter Nicholson, Microeconomic Theory, Thomson.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Applied Multivariate Analysis

Course Code: 20IMG24GB2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand multivariate data structure, multinomial and multivariate normal distribution
CO2: apply Multivariate analysis of variance (MANOVA) of one and two- way classified data.

UNIT-I
Multivariate Analysis: Concept, the variate, Measurement scales, Measurement error, Methodology of Model Building. Multivariate Analysis of Variance: One independent variable at two levels and one dependent variable, two-group MANOVA, Multiple-group MANOVA, MANOVA for two independent variables or factors. Repeated Measure Analysis of Variance: Between-subject and within-subject factors and designs, univariate and multivariate approaches to repeated measure analysis.

UNIT-II
Principal Components Analysis: Geometry of principal components analysis, analytical approach, issues relating to the use of principal components analysis, use of principal components scores. Factor Analysis: Basic concepts and terminology of factor, objectives of factor analysis, geometric view of factor analysis, factor analysis techniques-principal components factoring (PCF), principal axis factoring, and factor analysis versus principal components analysis, factor rotation, and factor scores.

UNIT-III
Discriminant Analysis: Geometric view, analytical approach, classification methods, Fisher's linear discriminant, Mahalanobis distance. Canonical Correlation: Geometry of canonical correlation, analytical approach, canonical variates and the canonical correlation, statistical significance tests for the canonical correlations, interpretation of the canonical variates, practical significance of the canonical correlation.
Cluster Analysis: Hierarchical clustering, Non-hierarchical Clustering.

UNIT-IV
Structural Equation Modeling: Path Analysis, Confirmatory Factor Analysis, Structured Means Models.

Recommended Readings:

1. Tabachnick, Using Multivariate Statistics, Pearson Education.
2. Structural Equation Modeling: Path Analysis, Confirmatory Factor Analysis, Structured Means Models.
3. Tinsley, Harward E and Brown Stered D., Handbook of Applied Multivariate Statistical and Mathematical Modelling, Academic Press.
4. Morrison D F., Multivariate Statistical Analysis, McGraw Hill.
5. Overall J E and Klett C., Applied Multivariate Analysis, McGraw Hill.
6. Hair, Anderson, Tatham and Black. Multivariate Data Analysis, Pearson Education.
7. Nargundlar, R., Marketing Research, Tata McGraw Hill.
8. Johnson Richard A and Wichern Dean W., Applied Multivariate Statistical Analysis, Pearson Education

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Information Economics and its Applications

Course Code: 20IMG24GB3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes

After completing the course students would be able to:

CO1: understand Supply and Demand. Equilibrium Analysis. Marginal Analysis. Positive and Normative Questions

CO2: understand Market Structure--Perfect Competition, Monopoly, and selling environments.

UNIT-I

Introduction to Information Economics; The Principal Agent**:** Hidden actions (Moral hazard) problem, hidden information problems, monopolistic screening.

UNIT-II

Adverse Selection**:** Concept, lemons problem, probable solutions. Signalling: Separating and Pooling equilibrium, Insurance market, cheap talk.

UNIT-III

Screening: Second degree price discrimination, Screening in Competitive Insurance Market, Monopoly screening in insurance Market

UNIT-IV

Introduction to Mechanism design**:** Basic concepts, revelation principle, truthful implementation. Applications of mechanism design to bargaining and auctions**:** Bidding behaviour in the four standard auctions: First price sealed bid, second price sealed bid, Dutch auction, English auction. Revenue equivalence theorem; Applications to Finance**:** Credit market rationing.

Recommended Readings:

1. Mas Collel Whinston and Green, Microeconomic Theory (MWG), Oxford University Press.
2. Hart, O., and Holmstrom, B., "The Theory of Contracts." In T. Bewley (ed.), Advances in Economic Theory Fifth World Congress, Cambridge University Press.
3. Varian, Microeconomic Analysis. W. W. Norton and Company; 3rd edition (1992).
4. Akerlof, G. "The market for lemons: Qualitative uncertainty and the market mechanism" Quarterly Journal of Economics 84, 3, 488 – 500. (1970)
5. Spence, A. M. "Job Market Signalling." Quarterly Journal of Economics 87 (1973).
6. Grossman, S. (1981), "The Informational Role of Warranties and Private Disclosure about Product Quality" Journal of Law and Economics, Vol. 24, No. 3.
7. Freixas and Rochet, Microeconomics of Banking. The MIT Press; second edition (2008).

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Mathematical Statistics

Course Code: 20IMG24GB4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: perform estimation techniques to capture information from data and into their analysis.
CO2: use MOM, MLE, MVUE to do parameter estimation and inference.
CO3: use Chi-squared test to evaluate the homogeneity of populations.
CO4: use Chi-squared test to evaluate the independence of categorical variables.
CO5: use Chi-squared test to evaluate the goodness-of-fit of data to a specified distribution.

UNIT-I
Probability and Measure: Sigma fields and measures; measurable functions and distributions, integration of Borel function. Random Variables and Distributions: General properties – Distribution and probability densities, moments, moment generating and characteristic functions.

UNIT-II
Probability Distribution: Discrete random variables and their distributors- Binomial probability distribution, Geometric probability distribution and Poisson probability distribution and, their moments and moments generating functions; Continuous random variables and their probability distributors- Uniform probability distribution, Normal probability distribution, Gamma probability distribution, Beta probability distribution; Basic idea about multivariate probability distributors; sampling distributors and Central limit theorem.

UNIT-III
Estimation and Hypothesis Testing: Point estimators, confidence intervals, properties of point estimators; Hypothesis testing, elements of statistical test large sample test, small sample hypothesis testing for μ and $\mu 1 - \mu 2$, Power of test, Likelihood ratio tests

UNIT-IV
Statistical Analysis: Analysis of variance ; Analysis of Categorical Data-Chi-square test, Non-parametric statistic-Sign test, Wilcoxon, Signed Rank test, Mann – Whitney U test, Kruskal-Wallis test.

Recommended Readings:

1. Robert V. Hogg, Introduction to Mathematical Statistics, Pearson Education.
2 Wackerly, Mendenhall and Scheaffer, Mathematical Statistics with Applications, Duxbury, Thomson Learning.
3. Ross, S.M. Introduction to Probability Models, Pearson Education.
4. Kyburg Henry, Probability Theory, Prentice Hall.
5. Mittelhammer, R.C. Mathematical Statistics for Economics and Business. Springer.
6. Shao Jun, Mathematical Statistics, Springer.
7. Capinki M. and KOPP E., Measure Integral and Probability, Springer.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Market Microstructure

Course Code: 20IMG24GB5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand problem of Economic Organization, Organizational Objectives, and Transaction cost analysis.
CO2: understand the mechanism of price for coordination and motivation
CO3: understand the employment and compensation problems

UNIT-I
Economic Organization and Efficiency: Concept and rationale of organization, Organization and Efficiency, The problem of Economic Organization, Organizational Objectives, and Transaction cost analysis.

UNIT-II
Use of Price for coordination and Motivation, Neoclassical Model and theories of Organization, Market failure and Organization; Coordination: Market and Management, Price and coordination, management, Decentralization and the means of coordination.

UNIT-III
Bounded Rationality and Private Information, Motivation: Contracts, Information, and Incentives, Moral Hazard and Performance Incentives, Moral hazard in Organization, Controlling Moral Hazard.

UNIT-IV
Employment Policy and Human Resource Management, Internal Labour Market, Critique of Classical Theories of Employment, Job Assignments and Promotions, Compensation and Motivation: Implicit Incentive Pay, Performance Evaluation, Job Design, Incentive Pay for Groups.

Recommended Readings:

1. Paul Milgrom and John Roberts, Economics, Organization and Management, Prentice Hall.
2. Luis M.B. Cabral, Industrial Organization, Jaico Publishing House.
3. Sengupta,D.N. and Anadiya Sen, Economics of Business Policy, Oxford University Press.
4. Luis M.B. Cabral, Introduction to Industrial Organization, Cambridge Mass: The MIT Press.
5. Carlton, D. W. and J.M. Perloff, Modern Industrial Organization, Warper Collins.
6. Caves, R.E., Multinational Enterprise and Economic Analysis, Cambridge University Press.

Instructions for External Examiner: The question paper shall be divided in two sections. **Section A** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section B** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

Agricultural Input Marketing and Post-Harvest Management
Course Code: 20IMG24GA1

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the concept of different types of post-harvest practices for value addition
CO2: visualize the post-harvest problems likely to be confronted
CO3: know the tricks of the trade and how to increase the longevity of the produce
CO4: understand different marketing concept and marketing system in context of agricultural inputs;
CO5: understand proper handling technologies of important cereals, pulses, oilseeds, fruits and vegetables and their postharvest management.

UNIT – I
Agricultural input marketing – meaning and importance; Management of distribution channels for agricultural input marketing; Agricultural Inputs and their types – farm and nonfarm, role of cooperative, public and private sectors in agri- input marketing, Seed- Importance of seed input; Types of seeds- hybrid, high yielding and quality seeds; Demand and supply of seeds; Seed marketing channels, pricing, export import of seeds; Role of National Seed Corporation and State Seed Corporation.

UNIT – II
Chemical Fertilizers- Production, export-import, supply of chemical fertilizers, Demand/consumption, Prices and pricing policy; subsidy on fertilizers; marketing system – marketing channels, problems in distribution, Role of IFFCO and KRIBCO in fertilizer marketing.

UNIT – III
Plant Protection Chemicals- Production, export/import, consumption, marketing system – marketing channels; Farm Machinery- Production, supply, demand, Marketing and distribution channels of farm machines, Agro-industries Corporation and marketing of farm machines / implements/Equipment.

UNIT – IV
Importance and scope of post-harvest management of major cereals, pulses, oilseeds, fruits and vegetables in Indian Economy; Production and utilization of major cereals, pulses, oilseeds, fruits and vegetables; Present status of food industry in India and emerging scenario; Factors affecting post-harvest losses, Problems in marketing of processed foods, Government Policy, BIS standards for various processed products, Quality standards for domestic and international trade.

Recommended Readings:

1. Pradeep Kashya, Rural Marketing, Pearson Education.
2. Acharya, S. S. and Agarwal, N. L., 2011. Agricultural Marketing in India. 4th Ed. Oxford and IBH.
3. Broadway A. C. and Broadway, A. A., 2003, A Text Book of Agri-Business Management. Kalyani.
4. Singh, A. K. and Pandey, S., 2005. Rural Marketing. New Age.
5. Singh Sukhpal, 2004, Rural Marketing- Focus on Agricultural Inputs. Vikas Publ. House.
6. Chakraverty, A., 1995, Post-harvest Technology of Cereals, Pulses and Oilseeds, Oxford and IBH.
7. Verma, L. R. and Joshi, V. K., 2000, Post-Harvest Technology of Fruits and Vegetables, Vols. I-II. Indus Publ.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Livestock Business Management
Course Code: 20IMG24GA2

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the livestock business in India
CO2: specify marketable livestock commodities
CO3: understand marketing channels of livestock and livestock products

UNIT I
Livestock business- concepts, nature and scope; production, consumption, trade in livestock in India, Livestock contributions to national economy.

UNIT II
Livestock produce and products. Components, characteristic of small business. Marketable livestock commodities. Marketing of livestock, and perishable and non-perishable livestock products.

UNIT III
Market opportunities - marketing channels of livestock and livestock products, organized/unorganized markets and cattle fairs. Overview of Livestock Programme.

UNIT IV
Import and export of animal and animal products. International Agreements/Regulations (WTO and General Agreement on Trade and Tariff-GATT) for marketing/trade of live animals and products, MFPO, BIS Standards for meat products, National and international specifications and standards. Visit to livestock farms.

Recommended Readings:

1. Acharya, S. S. and Agarwal, N. L., 2011. Agricultural Marketing in India. 4th Ed. Oxford and IBH.
2. Safiullah, M. A., Selvam, S. and Prema, N., 2000, Livestock Economics, Business Management and Marketing, Tamil Nadu Veterinary and Animal Sciences University, Chennai.
3. Swatland, H. and Compbell, T., 2004, Meat Cuts and Muscle Foods, Nottingham Univ. Press.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Agri-Business Financial Management
Course Code: 20IMG24GA3

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand scope of financial management; classification & credit need in changing agriculture scenario
CO2: understand factors affecting capital structure
CO3: analyze need for working capital in agribusiness
CO4: understand the functioning of cooperative credit institutions, commercial banks, regional rural banks

UNIT-I
Importance, need and scope of financial management; classification and credit need in changing agriculture scenario; finance functions, investment financing; balance sheet, income statement, cash flow statement for agribusiness.

UNIT II
Financial planning and control - assessment of financial requirement of an agribusiness unit; leverage – concept of leverage. Financial and operating leverage; factors affecting capital structure, features of an optimal capital structure.

UNIT III
Working capital management - concept and components of working capital, need for working capital in agribusiness, management of cash and accounts receivables, and inventory for agribusiness.

UNIT IV
Capital budgeting - steps and concept of capital budgeting, appraisal criteria - payback period, average rate of return, net present value, benefit cost ratio and internal rate of return. Agri-business financing system in India - functioning of cooperative credit institutions, commercial banks, regional rural banks, NABARD, Agro- industries Corporation, etc. in agribusiness financing.

Recommended Readings:

1. Chandra P. 2000. Financial Management. Tata McGraw Hill.
2. Khan MY and Jain PK. 2004. Management Accounting. Tata McGraw Hill.
3. Vanhorne and Dhamija, Financial Management and Policy, Pearson Education.
4. Nefson AG and Murrey WG. 1988. Agricultural Finance. Kalyani Publ.
5. Pandey f M. 1997. Financial Management. Vikas Publ. House.
6. Rais, A., 2012, Agriculture, Rural Banking and Micro Finance in India. New Century Publ.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Agri-Cultural Marketing Management
Course Code: 20IMG24GA4

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the types of markets and marketing.
CO2: understand grading and standardization of agricultural products.
CO3: understand and apply the knowledge about agricultural marketing in promotion and distribution of agricultural products.
CO4: understand and evaluate the knowledge of students in agricultural marketing, role of credit agencies in India.

UNIT - I
Agricultural marketing, agricultural marketing and economic development. Agricultural market structure, components and dynamics of market structure. Marketing strategy, formulation of marketing strategy. Agribusiness marketing environment, design of marketing mix, market segmentation and targeting. Determinants of consumer's behavior.

UNIT - II
Product management, product management process and decisions. New product development- significance and classification of new product. Stages and estimation of demand of new product, product life cycle. Pricing policies and practices for agribusiness - determinants of price, objectives of pricing policies and pricing methods.

UNIT - III
Logistics- concepts, factors affecting logistics, objectives of logistics management, activities of logistics function order, processing, packaging, transport management inventory, warehousing etc.

UNIT - IV
Promotional management, advertising, planning and execution. Sales promotion, grading and standardization. Distribution management- storage and warehousing, transportation. Management for agricultural products. Marketing agencies/intermediaries, roles and functions of marketing agencies.

Recommended Readings:

1. Kotler, P and Keller, Marketing Management, Pearson Education.
2. Acharya, S. S. and Agarwal, N.L. 2004. Agricultural Marketing in India. 4th Ed. Oxford and IBH.
3. Kohls, R. L and Uhl, J. N. 2005. Marketing of Agricultural Products. 9th Ed. Prentice Hall.
4. Krishnamacharyulu, C and Ramakrishan, L. 2002. Rural Marketing. Pearson Edu.
5. Ramaswamy, V. S and Nanakumari, S. 2002. Marketing Management. 2nd Ed. Mac Millan India.
6. Beri, G.C. Marketing Management, Tata McGraw Hill Publishing Company Ltd, New Delhi.
7. Saxena, R. 2002. Marketing Management. McGraw Hill.
8. Christopher, M. L. Logistics and Supply Chain management.
9. Gupta, S. L. 1999. Marketing Management
10. Mishra, M. N. 1999. Marketing Management.
11. Rajannair, N. 1999. Marketing Management.
12. Ramaswamy. V. S. 1999. Marketing Management.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

International Agri-Business Trade
Course Code: 20IMG24GA5

L-T-P
3-1-0

External Marks: 80
Sessional Marks: 20
Time Allowed: 3 Hours

Course Outcomes
After completing the course students would be able to:

CO1: understand the various facets of international business management in the field of agriculture trade.
CO2: understand various policies and practices of International agri-business Management.

UNIT - I
International trade – basic concepts, Importance of foreign trade for developing economy; absolute and comparative advantage, foreign trade of India. WTO and its implications for Indian economy in general and agriculture sector in particular.

UNIT - II
TRIPS, TRIMS quotas, anti-dumping duties, quantitative and qualitative restrictions, tariff and non-tariff measures, trade liberalization, subsidies, green and red boxes, issues for negotiations in future in WTO; Countervailing Duty Measures and carbon trade, SPS Agreement. Regional economic groupings.

UNIT - III
Composition of India's foreign trade policy; India's balance of payments; inter regional Vs international trade; tariffs and trade control; exchange rate; the foreign trade multiplier. Export promotion institutions with special emphasis on EPCs and commodity boards, MPEDA, APEDA and service institutes. Role of ECGC in insurance.

UNIT - IV
Foreign demand, supply side analysis, opportunity cost, trade and factor prices, implications for developing countries, export procedures and documentations. International marketing - market entry methods, international product planning, pricing, promotion, distribution, problems of exporters, legal dimensions of international marketing.

Recommended Readings:

1. Anant, K., Sundaram and Stewart, B. J., The International Business: Text and cases, Pearson Education.
2. Bhalla V. K., 1993, International Economy- Liberalization Process. Anmol, New Delhi.
3. Cherunilam, F., 2010, International Business- Text and Cases. PHI.
4. Economic Survey of India (various issues), Ministry of Finance, GOI.
5. Eiteman, D. K. and Stopnehill, A. L., 1986, Multinational Business Finance. Addition Wesley, New York.
6. Paul, J.,2013, International Business. PHI.
7. Subba Rao, P., 2008, International Business Text and Cases..HPH.
8. Woods, M., 2001, International Business. Palgrave.

Instructions for External Examiner:
The question paper shall be divided into two sections. Section A shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions (2questions from each unit).The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Updated list of Foundation and Open Elective courses

Students be advised to give the option of foundation/open elective latest by 13.02.2017 by filling up the form available on the website to the HOd of his/her parent department, thereafter the HOD will forward the application to the concerned other department retaining a copy of the same. Classes of the courses opted will be held on the departments which have offered the same.

A) Foundation Elective Courses

Students of all PG programmes under CBCS (w.e.f. 2016-17) are required to study one foundation elective course in 2nd semester for 2 years Programmes and in 4th Semester for 3 years Programmes. They may choose any one of the following courses (excluding the courses offered by the departments of their own subjects, if not stated otherwise).

Sr. No.	Nomenclature of the course	Course Code	Offered by the Department of
1	Basics of Accounting	16COMF1	Commerce
2	Basics of E-Commerce	16COMF2	Commerce
3	Elements of Banking	16COMF3	Commerce
4	Computer Fundamentals	16CSAF1	Computer Science & Application
5	Appreciation of Short Stories	16ENGF1	English & Foreign Languages
6	Appreciation of Poetry & Prose	16ENGF2	English & Foreign Languages
7	Appreciation of Fiction	16ENGF3	English & Foreign Languages
8	Appreciation of Drama	16ENGF4	English & Foreign Languages
9	Moral Education	16GENF1	Genetics
10	Geography in Everyday Life	16GEOF1	Geography
11	Hindi language and Communication Skill	16HNDF1	Hindi
12	Entrepreneurship Development	16IMSF1	IMSAR
13	Communication and Soft Skills	16IMSF2	IMSAR
14	Media law	16LAWF1	Law
15	Appreciation of Indian Music	16MUSF1	Music
16	Psychology for Everyday Living	16PSYF1	Psychology
17	Electronics Engineering	16 ECE F1	UIET (Electronics & Communication)

(Foundation Elective Paper)
Basics of Accounting
Paper Code: 16COMF1

Total Marks: 50
External Marks: 40
Internal Marks: 10

Time: 3 Hours
Credits = 02

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 8 small questions of equal marks. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry equal marks

Unit-I

Meaning of Accounting, Accountancy and Book Keeping, Objectives of Accounting, Scope of Accounting, Types of Accounting, Limitations, Basic Accounting Terms, Double Entry System of Book Keeping, GAAP (Generally Accepted Accounting Principal), Basic accounting Equations

Unit-II

Journalizing: Classification of Accounts, Personal, Real and Nominal; Recording & posting of simple transactions only.

Unit-III

Preparation of Subsidiary Books: Cash Book(single column cash book) Purchase Book, Sales Book, Purchase Return, Sales Return Book, B/R and B/P Book.

Unit-IV

Preparation of Trial Balance, Preparing the Financial Statements Trading Account, Profit and Loss Account and Balance Sheet of sole proprietary business (Without Adjustment).

Suggested Readings:

1. D.K. Goyal: Financial Accounting, Arya Publications Pvt Ltd.
2. S.N. Maheshwari : An introduction to Accounting, Vikas Publishing House Pvt. Ltd.
3. Nishat Azmat and Andy Lymer: Basic Accounting: The step-by-step course in elementary accountancy, Kindle Edition
4. Anthony, R.N., a n d J.S. Reece, “Accounting Principles", Richard D. Irwin, Inc.
5. M onga, j.R., "Financial Accounting: Concepts and Applications", Mayoor Paper Backs, New Delhi.
6. Shukla, M.C., T.S. Grewal and S.C.Gupta, "Advanced Accounts", Vol-I, S.Chand & Co., New Delhi.
7. Gupta, R.L. and M. Radhaswamy, “Advanced Accountancy", Vol-I, Sultan C hand & Sons, New Delhi.

(Foundation Elective Paper)
Basics of E-Commerce
Paper Code: 16COMF2

Total Marks: 50
External Marks: 40
Internal Marks: 10
Time: 3 Hours **Credits = 02**

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 8 small questions of equal marks. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry equal marks

Unit-I

E-Commerce: Meaning, Concept, Definitions, Origin and Development, Categories of E-Commerce: B2B, B2C, B2G, G2G,G2C; The Constitution of the E-Commerce: Portal of the Network, Customer Relationship Management, Supply Chain Management, Logistic Management, Decision Support; Supporting Environment for E-Commerce: Technical Environment, Legal Environment, Credit Environment and Financial Environment.

Unit-II

M-Commerce: The Origin of M-Commerce, M-Commerce Components, The Development of M-Commerce, The Application of M-Commerce

Unit-III

Payment Technologies for E-Commerce: Online Bank, E-Payment Tools: E-Payment System, Intelligent Card, E-check, E-wallet, E-Cash

Unit-IV

Electronic Commerce: Influence on Marketing: Product, Physical Distribution, Price, Promotion, Marketing Communication, Common e-Marketing Tools

(Foundation Elective Paper)
Elements of Banking
Paper Code: 16COMF3

Total Marks: 50
External Marks: 40
Internal Marks: 10 **Time: 3 Hours**

Credits = 02

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 8 small questions of equal marks. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry equal marks

Unit-I

Introduction to Banking: Meaning, Concept, History of Banking, Business of Banking, Functions of Banking, Banker Customer Relationship, Recent Developments in Banking Industry: Corporate Banking, Retail Banking, International Banking, Rural Banking, Non-Banking Financial Intermediaries

Unit-II

Structure of Commercial Banks in India: Structure of Indian Banking System, Reserve Bank of India, Commercial Banks, Public Sector Banks, Private Sector Banks, Foreign Banks, Indian Banks vs. Foreign Banks.

Unit-III

Structure of Co-operative Banks in India: Co-operative Banks: Meaning, Definitions, Commercial vs. Co-operative Banks, Regional Rural Banks

Unit-IV

Structure of Apex Banking Institution in India: Meaning, Definitions, National Bank for Agriculture and Rural Development (NABARD), National Housing Bank (NHB), Small Industries Development Bank of India (SIDBI), Export Import Bank of India (EXIM Bank)

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

FOUNDATION COURSE

(16CSAF1)

COMPUTER FUNDAMENTALS

Total Marks: 50
External Marks: 40
Internal Marks: 10

Time: 3Hrs.

Note: Examiner will be required to set NINE questions in all. Question Number 1 will consist of total 8 parts (short-answer type questions) covering the entire syllabus and will carry 16 marks. In addition to the compulsory question there will be four units i.e. Unit-I to Unit-IV. Examiner will set two questions from each Unit of the syllabus and each question will carry 16 marks. Student will be required to attempt FIVE questions in all. Question Number 1 will be compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each Unit.

Unit-I

Historical Evolution of Computing Systems: Overview of Data Processing, History of Computing, Computer Generations; Characteristics of Computer, Anatomy of Computer, Classification of Computers.

Number Systems and Codes: Introduction, Number Systems and its types, and inter-conversion of Number Systems; ASCII and EBCDIC codes.

Input and Output Devices: Concept of Input/Output, Types of Input Devices; Output Devices – Printers, Plotters and Monitors.

Unit-II

Memory and Storage Devices: Characteristics of memory systems, memory hierarchy, Types of Memory – RAM, ROM, etc.; Magnetic Disks, Magnetic Tapes, Optical Disks; Concept of Cache Memory and Virtual Memory.

Software and Operating System Concepts: Introduction, Software Types, Language translators, System Utility Software, Application Software; Operating System – Characteristics, its functions, and its classification; User Interfaces – CUI and GUIs. DOS and Windows operating systems.

Unit-III

Working with Office Tools:

Using Word Processing: Opening and Closing of documents, Text creation and Manipulation, Moving Around in a Document, Formatting of text, Table handling, Spell check, language setting and thesaurus, Handling Multiple Documents, Printing of word document.

Using Spreadsheet tool: Basics of Spreadsheet; Manipulation of cells, Formulas and Functions, Editing of Spread Sheet, Page setups, header and footer, printing of Spread Sheet.

Using Slide Presentation Tool: Basics of powerpoint, Preparation and Presentation of Slides, Slide Show, Formatting and Clip Arts, Taking printouts of presentation / handouts.

Unit-IV

Communication and Networks: Data Communication, Transmission Modes, Basics of
Computer networks, types of computer network - LAN, MAN, WAN; Network Topologies and
Applications of Computer
Networks.

Internet Basics: Concept of Internet, Application of Internet, WWW, Web-sites and URLs, Search Engine, Using Electronic mails, Instant Messaging, Web Browsing software, Surfing the Internet.

Social Concern: Positive and Negative Impacts of Computer Technology, Computer Crimes, Computer Virus: Definition, Types of viruses, Characteristics of viruses, anti-virus software.

Computer Applications: Data Analysis, Sports, Research, Education, Business, Medicines & Health Care, Weather Forecasting, Military.

Suggested Readings:

1. Nasib Singh Gill: Handbook of Computer Fundamentals, Khanna Books Publishing
   Co.(P) Ltd., New Delhi, 2016.
2. P.K Sinha: Computer Fundamentals, BPB Publications.
3. Nasib Singh Gill: Computing Fundamentals and Programming in C, Khanna Books
   Publishing Co.(P) Ltd., New Delhi.
4. V. Rajaraman: Fundamentals of Computers, PHI
5. Microsoft Office – Complete Reference – BPB Publication
6. Norton Peter: Introduction to Computer, McGraw-Hill.
7. Leon, Alexis & Leon, Mathews: Introduction to Computers, Leon Tech World.
8. C.S. French: Data Processing and Information Technology, BPB Publications.

DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES
FOUNDATION COURSES
Odd Semester

Course Code: 16ENGF1
Nomenclature of the Course: Appreciation of Short Stories

Total Marks: 50
External Marks: 40 Lectures 2
Internal Marks: 10 Total Credits: 2
Time: 3 hrs

Prescribed Texts

William Carlos Williams:	"The Use of Force"
James Thurber:	"The Catbird Seat"
Ernest Hemingway:	"In Another Country"
John Henry Noyes Collier:	"Wet Saturday"
Dylan Thomas:	"The Enemies"

[**Prescribed Book**: Brooks, Cleanth, John Thibaut Purser, and Robert Penn Warren. *An Approach to Literature.* 5th ed.]

Instructions to the Paper-Setter:

In Question 1, students will be required to explain one passage, out of the two given, with reference to the context. 8

In Question 2, students will be required to answer any four questions, out of the given six, in about 150 words each. 4 x 3 = 12

Questions 3 and 4 will be essay type questions. Both these questions carry 10 marks each.

Suggested Reading:

Currie, Gregory. *Narratives and Narrators.*

Davis, Robert Marry. Ed. *The Novel: Modern Essays in Criticism.*

Dietrich, R.F. and Roger H. Sundell. *The Art of Fiction.*

Miller, J. Hillis. *On Literature.*

Nayar, Pramod. K. *Studying Literature: An Introduction to Fiction and poetry.*

Scholes, Robert, and H. Klaus and Michael Silverman. *Elements of Literature.*

DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES
FOUNDATION COURSES
w. e. f. 2016-17 (Under CBCS)
Odd Semester

Course Code: 16ENGF2

Nomenclature of the Course: Appreciation of Poetry and Prose

Total Marks: 50
External Marks: 40 Lectures 2
Internal Marks: 10 Total Credits: 2
Time: 3 hrs

Unit I

Poetry

Wallace Stevens: "The Emperor of Ice-Cream"

Thomas Hardy: "Last Words to a Dumb Friend"

Ben Jonson: "To the Memory of my Beloved, the Author, Mr. William Shakespeare"

William Shakespeare: "Sonnet 66"

Geoffrey Chaucer: "The Prioress" (From *The Prologue*)

Robert Browning: "My Last Duchess"

[**Prescribed Book**: *Inside Poetry* by James Reeves and Martin Seymour-Smith]

Unit II

Essays

Charles Lamb: "The Two Races of Men"

Virginia Woolf: "The Death of the Moth"

Frances Bacon: "Of Studies"

Joseph Addison: "Female Orators"

Samuel Johnson : "Singularities Censured" (*Adventurer No. 131. Tuesday, February 5, 1754.*)

[Prescribed Book: *Elements of Literature* by Robert Scholes, H. Klaus and Michael Silverman]

Instructions to the Paper-Setter:

In Question 1, students will be required to explain one passage with reference to the context.

There will be one passage from each Unit.

8

In Question 2, students will be required to answer any four questions in about 150 words each.

There will be three questions from each unit.

4 x 3 = 12

In Questions 3 and 4 based on Units I and II respectively, students will be required to attempt critical appreciations. Both these questions carry 10 marks each.

DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES
FOUNDATION COURSES
Even Semester

Course Code: 16ENGF3

Nomenclature of the Course: Appreciation of Fiction

Total Marks: 50
External Marks: 40 Lectures 2
Internal Marks: 10 Total Credits: 2
Time: 3 hrs
Prescribed Texts

Unit I

Leo Tolstoy: *The Death of Ivan Ilych.*

(**Prescribed Book**: Kennedy, X.J. *An Introduction to Fiction.* Harper Collins, 1991).

Unit II

D.H. Lawrence: *The Man Who Died*

(**Prescribed Book**: *Interpreting Literature* (Fifth Edition) by K.L. Knickerbocker and H. Willard Reninger, Hold, Rinehart and Winston, Inc.1974).

Instructions to the Paper-Setter:

In Question 1, students will be required to answer any five questions in about 150 words each.

There will be four questions from each unit.

5 x 4 = 20

In Questions 2 and 3 based on Units I and II respectively, students will be required to attempt critical appreciations. Both these questions carry 10 marks each.

Suggested Reading:

Currie, Gregory. *Narratives and Narrators*.

Davis, Robert Murray.Ed. *The Novel: Modern Essays in Criticism.*

Dietrich, R.F. and Roger H. Sundell. *The Art of Fiction.*

Hudson, W.H. *An Introduction to The Study of English Literature.*

Miller, J. Hillis. *On Literature.*

Nayar, Pramod. K. *Studying Literature: An Introduction to Fiction and Poetry.*

Scholes, Robert, and H. Klaus and Michael Silverman. *Elements of Literature.*

DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES
FOUNDATION COURSES
Even Semester

Course Code: 16ENGF4
Nomenclature of the Course: Appreciation of Drama

Total Marks: 50
External Marks: 40
Internal Marks: 10 Total Credits: 2
Time : 3 hrs
Prescribed Text

William Shakespeare: *The Tempest*

Instructions to the Paper-Setter:

In Question 1, students will be required to explain one passage, out of the two given, with reference to the context. 8

In Question 2, students will be required to answer any four questions, out of the given six, in about 150 words each. 4 x 3 = 12

Questions 3 and 4 will be essay type questions. Both these questions carry 10 marks each.

Suggested Reading:

Interpreting Literature (Fifth Edition) by K.L. Knickerbocker and H. Willard Reninger, Hold, Rinehart and Winston.

Kennedy, X.J. *An Introduction to Fiction* by X. J. Kennedy.

Viva Modern Critical Interpretations of Shakespeare's The Tempest

Foundation course run by Department of Genetics.

(Foundation course)

MORAL EDUCATION

PaperCode:16GENF1

Total Marks: 50
External Marks: 40
Internal Marks: 10

Time: 2.00 Hours

Instructions

There will be a total of five questions. Question No. 1 will be compulsory and shall contain eight to ten short answer type questions without any internal choice and it shall cover the entire syllabus. The remaining four questions will include two questions from each unit. The students will be required to attempt one question from each unit. The students will attempt three questions in all.

UNIT I

Guiding principles for life

Ethics

a. Guidelines set by society
b. Changes according time and place

Morals

c. Guidelines given by the conscience
d. Always constant

Ethics in the workplace

a. Respect for each other
b. Obedience to the organization
c. Dignity of labour
d. Excellence in action

UNIT II

Concept of Trusteeship

a. Everything belongs to society
b. Man is only a caretaker
c. Our responsibility to ensure welfare of all

Importance of service

a. Responsibility of an individual
b. Man is only a caretaker
c Our responsibility to ensure welfare of all

MA Geography Semester-II
Foundation Course: 16GEOF1
GEOGRAPHY IN EVERYDAY LIFE

16GEOF1

Total Marks: 50
External Marks: 40
Internal Marks: 10

Learning Objectives

With spatial turn in the other social sciences and humanities and cultural turn in geography the spatial structure has begun to be seen not merely as an arena in which social life unfolds but rather as a medium through which social relations are produced and reproduced. All this has strengthened geography as a multidisciplinary and interdisciplinary discipline. Geography deepens understanding of many contemporary issues and challenges - climate change, food security, energy choices – that cannot be understood without a geographical perspective. It serves vital educational goals: thinking and decision making with geography helps us to live our lives as knowledgeable citizens, aware of our own local communities in a global setting. What we need is a global sense of the local, a global sense of place.

Learning Outcome

On completion of the course a student should be able to understand how geography permeates each and every aspect that concerns our living on this earth. They would know how Geography can use its versatility and multi-factor approach, co-existence between physical and human aspects, construction of ideas around space which are politically and administratively relevant, to its best advantage.

Unit I

Geography and Environment; Geography and Social Sciences; Geography and Development; Geography and Planning

Unit II

Geography and Governance; Geography and Globalization; Geography and Disasters; Geography and Cartography

Note: (i) The question paper will have three units. First two units of question paper will contain two questions from each unit of the syllabus. Candidate(s) are required to attempt two questions in all selecting one from each unit. Unit III shall be compulsory and shall contain five short answer type questions covering entire syllabus in which candidates will be required to attempt any five out of eight questions. All questions carry equal marks.

(ii) Internal Assessment of 10 marks will be 'Map Filling' about the location of important places, landforms, and geographical features in India and the world. The unit three shall be compulsory and shall contain five short answer type questions covering entire syllabus.

Recommended Readings

Daniels, Peter, Michael Bradshaw, Denis Shaw, and James Sidaway. 2012. An Introduction to Human Geography. 4th edition. Pearson Education Ltd. Harlow, England.

Herod, Andrew. 2009. Human Geography: the basics, Routledge, New York.

Hopper, Paul. 2012. Understanding Development: Issues and Debates, Polity Press. Cambridge, UK,.

Kant, Surya and Nina Singh ed. 2015. Geography Development Public Policy: Select Essays of Gopal Krishan. RK Books, New Delhi.

Kapur, Anu. 2010. Vulnerable India, Sage Publications, New Delhi.

Knox, Paul. 2014. Atlas of Cities. Princeton University Press.

Oxford Atlas of the World. 2015. 22nd edition. Oxford University Press.

फाउंडेशन
हिन्दी भाषा एवं सम्प्रेषण कौशल

16HNDF1

समय : 3 घण्टे

पूर्णांक : 50 अंक
आंतरिक मूल्यांकन : 10 अंक
लिखित परीक्षा : 40 अंक

(क) हिन्दी भाषा

1. भाषा की परिभाषा, प्रकृति एवं विविध रूप
2. हिन्दी भाषा की विशेषताएँ : संज्ञा, सर्वनाम, विशेषण क्रिया एवं अव्यय संबंधी।
3. हिन्दी की वर्ण–व्यवस्था : स्वर एवं व्यंजन।
4. स्वर के प्रकार – ह्रस्व, दीर्घ तथा प्लुत।
5. व्यंजन के प्रकार : स्पर्श, अन्तस्थ, ऊष्म, अल्पप्राण, महाप्राण, घोष तथा अघोष।
6. वर्णों का उच्चारण स्थान : कण्ठ्य, तालव्य, मूर्द्धन्य, दन्तय, ओष्ठ्य तथा दन्तोष्ठ्य।
7. बलाघात, संगम, अनुतान तथा संधि।
8. हिन्दी वाक्य रचना। वाक्य भेद।

(ख) संप्रेषण कौशल

1. संप्रेषण की अवधारणा और महत्त्व
2. संप्रेषण के प्रकार
3. संप्रेषण के माध्यम
4. भाषा संप्रेषण के चरण : श्रवण, अभिव्यक्ति, वाचन तथा लेखन।
5. साक्षात्कार, भाषण कला एवं रचनात्मक लेखन।
6. भावार्थ और व्याख्या, आशय लेखन, विविध प्रकार के पत्र लेखन।

निर्देश :–

खंड क तथा ख में से चार–चार प्रश्न पूछे जाएंगे। परीक्षार्थी को प्रत्येक खंड से दो–दो प्रश्नों का उत्तर देना होगा। प्रत्येक प्रश्न 20 अंक का होगा।

ENTREPRENEURSHIP DEVELOPMENT

Total Marks: 50
External Marks: 40
Internal Marks: 10

Course Code: 16IMSF1

Course Objective:
This course aims to acquaint the students with challenges of starting new ventures and enable them to investigate,
understand and internalize the process of setting up a
business.

Unit-I
Entrepreneurship: Concept, knowledge and skills requirement; characteristics of successful entrepreneurs; role of entrepreneurship in economic development; entrepreneurship process; factors impacting emergence of entrepreneurship

Uniti-II

Starting the venture: generating business idea – sources of new ideas, methods of generating ideas, opportunity recognition; environmental scanning, competitor and industry analysis; feasibility study – market feasibility, technical/operational feasibility, financial feasibility: drawing business plan

Unit -III
Functional plans: marketing plan – marketing research for the new venture, steps in preparing marketing plan, contingency planning; organizational plan – form of ownership, designing organization structure; financial plan – cash budget, working capital

Unit -IV
Sources of finance: debt or equity financing, commercial banks, venture capital; financial institutions supporting entrepreneurs; legal issues – intellectual property rights patents, trademarks, copyrights, trade secrets, licensing

Suggested Readings:

1. Hisrich, Robert D., Michael Peters and Dean Shephered, Entrepreneurship, Tata McGraw Hill, New Delhi
2. Barringer, Brace R., and R. Duane Ireland, Entrepreneurship, Pearson Prentice Hall, New Jersy (USA)
3. Lall, Madhurima, and Shikha Sahai, Entrepreneurship, Excel Books, New Delhi
4. Charantimath, Poornima, Entrepreneurship Development and Small Business Entreprises ,
5. Pearson Education, New Delhi

6. Kuratko, Donand and Richard Hodgetts, Entrepreneurship, Cengage Learning India Pvt. Ltd., New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of eight short answer type questions from whole of the syllabus carrying one mark each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks

COMMUNICATION AND SOFT SKILLS
Course Code: 16IMSF2

Total Marks: 50
External Marks: 40
Internal Marks: 10

Time Allowed: 3 Hours

Course Objective:
The objective of this course is to expose the students to basic communication and soft skills and to familiarize them with behavioral skills and business etiquettes.

Unit -I
Communication Skills - Concept, characteristics and process of communication; 7C's of communication; listening skills, verbal communication, non-verbal communication, body language, art of meeting and greeting, making effective conversation

Unit -II
Presentation Skills - Difference between speech and presentation, handling of presentation audience questions, holding meetings, group discussion and interviews; structuring a presentation, delivering the presentation; situational presentation

Unit -III
Behavioral Skills - Positive altitude, self-management, problem solving skills, time management skills, anger management, coping skills, assertiveness team building skills

Unit -IV
Business Etiquette - Business dress and grooming, office courtesies, etiquette for special occasions, meeting etiquette, dining etiquette

Suggested Readings:

1. Kaul, Asha, The Effective Presentation, Response Books, New Delhi
2. Fox, She, Business Etiquette for Dummies, Wiley Publishing inc.
3. Chaney, Lillian and Janette Martin, The Essential Guide to Business Etiquette, Praeger, London
4. Sanghi, Seema, Towards Personal Excellence, Response Books, New Delhi
5. Sherfield, Robert M, R J Montgomery and Patricia G Moody, Developing Soft Skills, Pearson Education, New Delhi
6. Chancy, Lillian and Janelte Martin, The Essential Guide to Business Etiquette, Praeger, Londonson Edueation, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

LL.M. SECOND SEMESTER EXAMINATION

(Media Law)

16LAWF1

Total Marks: 50
External Marks: 40
Internal Marks: 10

Time Allowed: 3 Hours

The question paper of each course will be divided into two sections A & B, Section A consists of Eight Small answer type questions (without internal choice) carrying 3 marks each covering the entire syllabus. This section as such will be compulsory. Section-B shall again consist eight questions carrying 14 marks each covering the entire syllabus. However, the candidate shall be required to attempt any four questions from this section.

NOTE FOR STUDENTS

Attempt all questions in Section A and Four Questions from Section B. Each Question in Section A carries 3 marks and each question in Section B carries 14 marks.

Unit: I. Introduction: Evolution of Media; Types of media: Print, Electronic; E-Media free flow of Information beyond boundaries and barriers; Difference between Visual and non-Visual Media- impact on People

Unit: II. Freedom of Speech and Expression- Article 19 (1) (a): An Introduction to Freedom of expression; Evolution of Freedom of Press; Restrictions under Constitution: Article 19 (2), Government power to legislate0- Article 246 read with the Seventh Schedule.; Power to impose Tax- licensing and licence fee; Advertisement & Ethics: Misleading Advertisement vis-à-vis Consumers rights.

Unit: III. Law of defamation and obscenity: Defamation; Libel, Slander; Obscenity; Sedition

Unit: IV. Development of laws relating to Mass Media via a vis International regime: Censorship of films; Censorship under Constitution; Censorship under the Cinematograph Act; Pre- censorship of films.

Select Bibliography:

- M.P. Jam, Constitutional Law of India (1994) Wadawa, Nagpur
- H.M. Seervai, Constitutional Law of India 2002 Vol. 1 Universal
- John B. Howard, "The Social Accountability of Public Enterprises" in Law and Community Controls in New Development Strategies (International Center for law in development 1980)
- Bruce Michael Boys, Film Censorship in India: A Reasonable Restriction on Freedom of Speech and Expression" 14 J.I.L.l 501 (1972)
- Rajiv Dhavan "On the Law of the Press in India" 26J.l.L.l 288(1984)
- Rajeev Dhavan "Legitimating Government Rhetoric: Reflections on Some Aspects of the Second Press Commission" 26 J.l.L.I 391 (1976)
- Soli Sorabjee, Law of Press Censorship in India (1976)
- Justice E.S. Venkaramiah, Freedom of Press: Some Recent Trends (1984)
- D.D. Basu, The Law of Press of India (1980)

Semester-2(Music)
Appreciation of Indian Music
16MUSF1

Paper Code	Core	Nomenclature of Papers	Maximum Marks	Internal Assessment Marks	Total Marks	Credit
16MUSF1	Foundation Elective	Appreciation of Indian Music	40	10	50	2

Structure of LTP

Lecture	Tutorials	Practical
3	1	0

Unit-I

- The study of sound and concept of Naad/swar
- Brief history of Indian Music
- Study of Technical terms of Indian Music
- An instroduction to Raga

Classification of Raga

Component/technical terms & structure of presentation of Raga

Unit-II

- Rhythm & Music

Laya & Taal

Writing of basic taalas-teental, ektaal, rupak, jhaptaal

- Writing an essay of 1000 words on relationship between Music and the subject belongs to you
- Music therapy and its impact on human body
- Different kind of compositional forms and their evolution
- Understanding music through Rag Mala painting

Department of Psychology

PAPER- (16PSYF1)

Psychology for Everyday Living

Credits : 2 (2Credit Theory:2 hrs/week

Total Marks: 50
External Marks: 40
Internal Marks: 10

Time Allowed: 3 Hours

Note:

a) *Nine questions would be set in all. Candidates would be required to attempt five questions.*
b) *There would be two questions (16 marks each) from each of the four Units. Candidates would attempt one question from each Unit.*
c) *Question No. IX would be compulsory. It shall be based on the entire syllabus and would contain eight short answer questions of two marks each*

Unit I

Science of Psychology: Definition, Goals, Basic and Applied areas of Psychology.

Self: Nature of self, Self-Regulation and Personal Growth.

Unit II

Intelligence: Definition; Theories: Theory of multiple intelligences, Triarchic theory, Emotional Intelligence.

Administration: Any one test of Intelligence/Emotional Intelligence.

Unit III

Personality: Definition;Theories: Trait and Type: Eysenck; Psychoanalytical: Freud; Humanistic: Maslow.

Administration: Any one objective test of Personality.

Unit IV

Stress and Coping: Nature of Stress; Sources; Stress reactions; Factors that influence reactions to stress.

Coping with stress: Modifying environment; Altering lifestyle.

Recommended Books:

Khatoon, N. (2012). General Psychology. Pearson: Delhi.

Baron, R.A. and Misra, G. (2016). Psychology. Pearson: Delhi.

Ciccarelli, S.K. and Meyer, G.E. (2006). Psychology. Pearson: Noida

A) Open Elective Courses

Students of all PG programmes under CBCS (w.e.f. 2016-17) are required to study one open elective course in each of the 2nd and 3rd Semesters for 2-Years Programmes and in each of the 4th and 5th semesters for 3-Years Programmes. They may choose any one of the following courses (excluding the courses offered by the departments of their own subjects, if not stated otherwise).

Sr. No.	Nomenclature of the course	Course Code	Offered by the Department	Offered for Semester
1	Introduction to Bioinformatics	16BINO1	Bioinformatics	2nd Sem
2	Computer Aided Drug Design	16BINO2	Bioinformatics	3rd Sem
3	Principles and Applications of Agriculture Biotechnology-I	16CBTO1	Biotechnology	2nd Sem
4	Principles and Applications of Agriculture Biotechnology-II	16CBTO2	Biotechnology	3rd Sem
5	Principles and Applications of Biotechnology-I	16CBTO3	Biotechnology	2nd Sem
6	Principles and Applications of Biotechnology-II	16CBTO4	Biotechnology	3rd Sem
7	Basic Biochemistry	16BCHO1	Bio-Chemistry	2nd Sem
8	Human Health & Nutritional Disorders	16BCHO2	Bio-Chemistry	3rd Sem
9	Plant Resource Utilization	16BOTO1	Botany	2nd / 3rd Sem
10	Fundamental of Income Tax	16COMO1	Commerce	2nd / 3rd Sem
11	Cyber Forensic & Security	16CSAO1	Computer Science	2nd / 3rd Sem
12	National Security of India	16DSSO1	Defence & Strategic Studies	2nd / 3rd Sem
13	Basics of Economics	16ECOO1	Economics	2nd Sem
14	Principles of Economics	16ECOO2	Economics	3rd Sem
15	Fundamental Aspects of Education	16EDUO1	Education	2nd Sem
16	Trends and Concerns of Teacher Education	16EDUO2	Education	3rd Sem
17	Environmental Issues	16ENVO1	Environmental Science	2nd Sem
18	Disaster Management	16ENVO2	Environmental Science	3rd Sem
19	Food Adulteration	16FTEO1	Food Technology	2nd / 3rd Sem
20	Genetics & Society	16GENO1	Genetics	2nd Sem
21	Forensic Science	16GENO2	Genetics	3rd Sem
22	Basics of Geoinformatics	16GEOO1	Geography	2nd / 3rd Sem
23	Geography of India Systematic and Regional	16GEOO2	Geography	2nd Sem
24	BhartiyaSahitya	16HNDO1	Hindi	2nd / 3rd Sem
25	Nationalism in India	16HISO1	History	2nd Sem

26	Survey of Sources of Indian History	16HISO2	History	3rdSem
27	Fundamentals of Management	16IMSO1	IMSAR	2ndSem
28	Fundamentals of Marketing	16IMSO2	IMSAR	3rdSem
29	Media & Society	16JRMO1	Journalism	2nd / 3rdSem
30	Family Law	16LAWO1	Law	2ndSem
31	Constitutional Law	16LAWO2	Law	3rdSem
32	Academic Integrity & Plagiarism	16LISO1	Library & Information Science	2ndSem
33	Information Sources and Literacy	16LISO2	Library & Information Science	3rdSem
34	Mathematical Techniques and Applications	16MATO1	Mathematics	2ndSem
35	Parametric & Non-Parametric Tests	16MATO2	Mathematics	2ndSem
36	Statistical Tools using SPSS	16MATO3	Mathematics	3rdSem
37	MATLAB	16MATO4	Mathematics	3rdSem
38	Principles of Medical Biotechnology I	16MBTO1	Medical Biotechnology	2ndSem
39	Principles of Medical Biotechnology II	16MBTO2	Medical Biotechnology	3rdSem
40	Microbial World-Diversity and Applications	16MCBO1	Microbiology	2ndSem
41	Microbial Technology for Entrepreneurship	16MCBO2	Microbiology	3rdSem
42	Sources of Energy-I	16PHYO1	Physics	2ndSem
43	Sources of Energy-II	16PHYO2	Physics	3rdSem
44	Administrative Literacy	16PUBO1	Public Administration	2ndSem
45	Environment Protection Administration	16PUBO2	Public Administration	3rdSem
46	Disaster Management - I	16POLO1	Political Science	2ndSem
47	Disaster Management - II	16POLO2	Political Science	3rdSem
48	Ancient Indian Culture & Philosophy	16SKTO1	Sanskrit	2nd / 3rdSem
49	Understanding Sociology	16SOCO1	Sociology	2ndSem
50	Indian Society	16SOCO2	Sociology	3rdSem
51	Quantitative Techniques	16STAO1	Statistics	2ndSem
52	Sampling & Estimation Techniques	16STAO2	Statistics	2ndSem
53	Optimization Techniques	16STAO3	Statistics	3rdSem
54	Computer Science Principles	16CSEO1	UIET (Comp. Sc. & Eng.)	2ndSem
55	Software Engineering Practices	16CSEO2	UIET (Comp. Sc. & Eng.)	2ndSem
56	Business skills for Biotechnologists	16MBTO1	UIET (Biotech)	2ndSem
57	Operations Research	16MMEO1	UIET (Mech. Eng.)	2ndSem

58	Multimedia Communication	16ECEO1	UIET(Electronics & Comm	2nd Sem
59	Applied Zoology	16ZOOO1	Zoology	2ndSem
60	Wild Life and Conservation	16ZOOO2	Zoology	3rdSem

CENTRE FOR BIOINFORMATICS

M. D. UNIVERSITY, ROHTAK

CBCS-SCHEME OF EXAMINATION (M.Sc. -Bioinformatics)-2016-17 onwards

Course Title: Introduction to Bioinformatics **Credit: 3 0 0**

Course Code: 16BINO1 **MM. Th 80+ IA 20** **Time: 3 Hours**

Note: In all 7 questions are to be set, Question No. 1 is compulsory and to be set covering entire Syllabus. 6 questions will be set with two questions from each unit. Students are required to attempt one compulsory question and 4 other questions, *i.e.*, selecting atleast one from each unit.

UNIT I

Overview of Bioinformatics and Information technology: History, scope and application, Internet and World Wide Web; Generation of computers; Concept of networking; Internet protocols – OSI model; TCP/IP models.

UNIT II

Bioinformatics resources: Biological databases, Basic classification – Sequence & Structure; Generalized & Specialized; Primary & Secondary, with example databases .

Omics science: Introduction to genomics, proteomics, metabolomics, interactomics.

UNIT III

Bioinformatics tools: Information retrieval system (Entrez, SRS); Sequence alignment tools (BLAST, FASTA, CLUSTAL-W/X, MUSCLE, TCOFFEE), Variants of BLAST (BLASTn, BLASTp, PSI-BLAST, PHI-BLAST, etc).

CENTRE FOR BIOINFORMATICS
M. D. UNIVERSITY, ROHTAK

CBCS-SCHEME OF EXAMINATION (M.Sc. -Bioinformatics)-2016-17 onwards

Course Title: Computer Aided Drug Design Credit: 3 0 0

Course Code: 16BINO2 MM. Th 80+ IA 20 Time: 3 Hours

Note: In all 7 questions are to be set, Question No. 1 is compulsory and to be set covering entire Syllabus. 6 questions will be set with two questions from each unit. Students are required to attempt one compulsory question and 4 other questions, *i.e.*, selecting atleast one from each unit.

UNIT I

Introduction to pharmacogenomics and pharmagenetics, clinical trials in pharmagenomics, polymorphism of CYP450 enzymes affecting drug response, role of SNP in pharmacogenomics, The multi Drug Resistance proteins: drug carriers affecting drug response.

UNIT II

Basis of Drug Pharmacokinetics and Pharmacodynamics, molecular descriptors, QSAR methodologies 3D QSAR. Structure based drug designing, Ligand based drug designing, Different docking methodologies, success stories in docking.

UNIT III

Pharmacophore modeling, Pharmacophore generation- (Hiphop and HypoGen theories). Combinatorial libraries, High thoughtput screening, Virtual screening, Lipinski's rule of five and its applications. Chemoinformatics: Introduction, Chemical Database(ACD,MDDR and WDI), Application of Chemoinformatics in CADD.

M.Sc Agriculture Biotechnology **Semester-II**

Course Title: Principles and Applications of Agriculture Biotechnology-I

MM. Th 80+IA 20

Time: 2 h

Course Code No. 16CBTO1

NOTE: In all four questions will be set, two from each unit and one compulsory question of short answer type covering all the two units. Students are required to attempt one compulsory question and two other questions selecting at least one from each unit.

Theory

UNIT I

Tools and techniques used in agriculture biotechnology, restriction digestion (restriction endonucleases, types and mechanism), ligases, alkaline phosphatases, polynucleotide kinase, SI nuclease, DNAse, RNAse, scoreable and selectable markers. PCR, C-DNA and genomic libraries.

UNIT II

Plant tissue culture and its application in crop improvement. Recombinant DNA technology and cloning vectors, Different methods of gene transfer in plants (*Agrobacterium* mediated transfers, microinjection, eletroporation, somatic cell hybridization).

UNIT III

Genetic and Molecular basis of Heterosis and Apomixis and their significance, Mutations and polyploidy in crop improvement, Molecular markers, Marker assisted breeding, QTL mapping, Origin, evolution and cultivation practices of the major crop plants. Improvement of crop plants: increase in iron, protein and amino acids, golden rice colours – anthocyanins, betalaines, crocin and crocetins. Flavours–capsaicin, vanillin, stevioside thaumatin. Developing vaccine and plantibodies, terminator technology and male sterility

Suggested readings:

1. Hou CT, Shaw JF (2009) – Biocatalysis and agricultural biotechnology, CRC Press, USA
2. Agricultural biotechnology, 1st edition, (2008) Rawat H, Oxford Book Co, India.
3. Agrobiotechnology and plant tissue culture, Bhojwani SS, Soh WY, Oxford & IBH Publ, India
4. Agricultural biotechnology, (2005), Kumar HD, Daya Publ House, India
5. Plant molecular breeding, (2009), Newbury HJ, John Wiley and Sons., USA.
6. Embryology of Angiosperms, (2009), S.S. Bhojwani and S.P. Bhatnagar, Vikas Publ House, India.
7. Ashwani Kumar, Shekhawat NS (2009) – Plant tissue culture and molecular markers: theor role in improving crop productivity (IK International) 8. Biotechnology, 4th edition, (2010), H K Das, Wiley India Pvt. Limited, India
8. Biotechnology, 4th edition, (2010), H K Das, Wiley India Pvt. Limited, India

M.Sc Agriculture Biotechnology **Semester-III**

Course Title: Principles and Applications of Agriculture Biotechnology-II

MM. Th 80+IA 20

Time: 2 h

Course Code No. 16CBTO2

NOTE: In all four questions will be set, two from each unit and one compulsory question of short answer type covering all the two units. Students are required to attempt one compulsory question and two other questions selecting at least one from each unit.

Theory

UNIT I

Gene Cloning and DNA Analysis in Agriculture: Methods in Molecular Cloning, Transformation of DNA: Chemical method and Electroporation; Gene delivery: Microinjection, eletroporation, biolistic method (gene gun), liposome and virus mediated gene delivery, *Agrobacterium* mediated gene delivery.

UNIT II

Development of transgenics for abiotic & biotic stress tolerance, Plants that make their own insecticides - The δ-endotoxins of *Bacillus thuringiensis,* Herbicide resistant crops (roundup ready crops), Gene subtraction: RNA silencing, CRISPER technology.

UNIT III

Genetically modified Crops: safety, risks and public concerns: GM foods-merits and demerits, Safety tests on commercial GM crops (GM maize, GM potatoes, GM rice, GM cotton, peas), Allergenicity studies, Public concerns-global scenario, Consumer's attitude towards GM foods, GM foods: issues with respect to India. Traceability of GMOs in the food production chain, Environmental and Safety concerns with selectable markers, The terminator technology, The possibility of harmful effects on the environment and humans.

Suggested readings:

1. Hou CT, Shaw JF (2009) Biocatalysis and agricultural biotechnology, CRC Press, USA
2. Brown, TA (2010) Gene Cloning and DNA Analysis: An Introduction, Sixth Edition. A John Wiley & Sons, Ltd., Publication, Germany.
3. Bhojwani SS, Soh WY (2005) Agro biotechnology and plant tissue culture, Oxford Press.
4. Clark DP, Pazdernik NJ (2009) Biotechnology: Applying the Genetic Revolution. Elsevier Academic Press, USA.
5. Primrose SB, Twyman RM (2006) Principles of Gene Manipulation and Genomics, 7th Edition. Blackwell Publishing, Oxford, U.K.
6. Kumar HD (2005) Agricultural biotechnology, Daya Publ House, India
7. Newbury HJ (2009) Plant molecular breeding, John Wiley and Sons., USA.
8. Kumar A, Shekhawat NS (2009) Plant tissue culture and molecular markers: their role in improving crop productivity (IK International)
9. Das HK (2010) Biotechnology, 4th Edition, Wiley India Pvt. Limited, India
10. Bawa AS and Kumar A (2013) Genetically modified foods: safety, risks and public concerns. J Food Sci Technol. 50(6): 1035–1046.

M.Sc Biotechnology **Semester-II**
Course Title: Principles and Applications of Biotechnology-I

MM. Th 80+IA20
Time: 2 h

Course Code No. 16CBTO3
NOTE: In all four questions will be set, two from each unit and one compulsory question of short answer type covering all the two units. Students are required to attempt one compulsory question and two other questions selecting at least one from each unit.

UNIT I

Molecular cloning tools; Restriction modification systems: Types I, II and III. Mode of action and nomenclature, DNA modifying enzymes and their applications: DNA polymerases, DNA phosphatases, and DNA ligases; Cloning Vectors: Definition and Properties, Plasmid vectors: pBR and pUC series; Bacteriophage lambda and M13 based vectors, Cosmids, BACs, YACs, linkers and adaptors.

UNIT II

Protein expression vectors: *E. coli* lac and T7 promoter based vectors, yeast YIp, YEp and YCp vectors, Baculovirus based vectors, mammalian SV40 based expression vectors, Methods in Molecular Cloning, Transformation of DNA: Chemical method & Electroporation; Gene delivery: Microinjection, electroporation, biolistic method (gene gun), liposome and viral mediated delivery, Agrobacterium mediated delivery, in vitro culture of plant and animal cells

UNIT III

DNA Amplification and DNA sequencing; PCR, RT-PCR, Sanger's method of DNA Sequencing: traditional and automated sequencing, Introduction to next generation sequencing, Chromosome walking & jumping, shotgun sequencing. Preparation, uses and screening of Genomic and cDNA libraries; Colony hybridization and colony PCR applications of Recombinant DNA Technology; Products of recombinant DNA technology: Products of human therapeutic interest-insulin, antisense molecules, Applications of recombinant DNA in crop improvement, Gene therapy, Recombinant vaccines, Protein engineering, Site directed mutagenesis and Biosensor technology

Suggested readings:

1. Brown, TA (2010) Gene Cloning and DNA Analysis: An Introduction, Sixth Edition. A John Wiley & Sons, Ltd., Publication, Germany.
2. Clark DP, Pazdernik NJ (2009) Biotechnology: Applying the Genetic Revolution. Elsevier Academic Press, USA.
3. Primrose SB, Twyman RM (2006) Principles of Gene Manipulation and Genomics, 7th Edition. Blackwell Publishing, Oxford, U.K.
4. Wiley JM, Sherwood LM, Woolveron CJ (2008) Prescott, Harley and Klein's Microbiology. McGraw Hill Higher Education.
5. Primrose SB and Twyman RM (2008) Genomics: Applications in human biology. Blackwell Publishing, Oxford, U.K.

M.Sc Biotechnology **Semester-III**

Course Title: Principles and Applications of Biotechnology-II

MM. Th 80+IA 20

Time: 2 h

CourseCode No. 16CBTO4

NOTE: In all four questions will be set, two from each unit and one compulsory question of short answer type covering all the two units. Students are required to attempt one compulsory question and two other questions selecting at least one from each unit.

UNIT I

Production of proteins from cloned genes: Cloning vectors and expression vectors, primer designing, open reading frame (ORF) and DNA Restriction pattern analysis, *E. coli* expression vectors, criteria for choosing different vectors, importance of different *E. coli* strains for expression, optimization of expression of recombinant proteins in *E. coli*, Codon optimization.

UNIT II

General problems with the production of recombinant proteins in *E. coli*, Dealing with insoluble proteins, Recombinant protein production in Eukaryotic cells. Processing, purification and characterization of recombinant proteins. Applications of recombinant protein production.

UNIT III

Study of Genomes: Genome annotation, identifying the genes in a genome sequence, determining the function of an unknown gene. Study of gene expression and regulation: identification of gene transcript, identifying protein binding sites on a DNA molecule: methods to study DNA protein interactions. Identification of promotor and control sequences, Analysing and comparing transcriptome, *in vitro* transcription, studying and comparing proteome: 2DE, MudPIT, LC-MS. Protein-Protein interactions (PPIs).

Suggested readings:

6. Brown, TA (2010) Gene Cloning and DNA Analysis: An Introduction, Sixth Edition. A John Wiley & Sons, Ltd., Publication, Germany.
7. Clark DP, Pazdernik NJ (2009) Biotechnology: Applying the Genetic Revolution. Elsevier Academic Press, USA.
8. Primrose SB, Twyman RM (2006) Principles of Gene Manipulation and Genomics, 7th Edition. Blackwell Publishing, Oxford, U.K.
9. Wiley JM, Sherwood LM, Woolveron CJ (2008) Prescott, Harley and Klein's Microbiology. McGraw Hill Higher Education.
10. Primrose SB and Twyman RM (2008) Genomics: Applications in human biology. Blackwell Publishing, Oxford, U.K.

Open Elective papers offered by Department of Biochemistry

16BCHO1: Basic Biochemistry

Note: Question 1 will be compulsory and will cover the entire syllabus in the form of short questions. Question 2 to 5 will include two questions from each unit and candidate will have to attempt one question from each unit. Overall, three questions to be attempted. All questions to carry equal marks.

MM. Th 80+IA 20

UNIT I:

*Cell***:** definition, general structure and size of some important cells, general functions of cell organelles, basic difference in prokaryotic and eukaryotic cells

Carbohydrates: Definition, classifications and sources of carbohydrates, occurrence and biological functions of monosaccharides, disaccharides, and polysaccharides

*Lipids***:** Introduction, classification and functions of lipids. Saturated and unsaturated fatty acids.Essential fatty acids.Triacylglycerides and their properties,

*Amino acids***:** Nutritionalclassification of amino acids and physical properties of amino acids.
*Proteins***:** Definition, types, sources, properties and biological significance of proteins,Primary, secondary, tertiary and quaternary structure of proteins.

UNIT 2:
Nucleic acids: Nucleotides & nucleosides, types of DNA and RNA, evidence that DNA is the genetic material, feature of DNA double helix, Size of DNA in prokaryotic and eukaryotic cells.
*Vitamins***:** Sources, examples and classification, important functions of fat soluble and water soluble vitamins
Enzymes: History, general characteristics, nomenclature and IUB classification of enzymes, holoenzyme, apoenzyme, coenzymes, prosthetic groups, cofactors, activators, inhibitors, active site, metalloenzymes and isozymes, Units of enzyme activity, examples of some clinically important enzymes

Factors affecting enzyme activity: pH, temperature, time of incubation, enzyme concentration and substrate concentration. Properties of allosteric enzymes and their significance.

Suggested Readings for 16BCHO1: Basic Biochemistry:

1. Lehninger Principles of Biochemistry 4th Ed ***By*** David L. Nelson and Michael M. Cox, WH Freeman and Company.
2. Principles of Biochemistry ***By*** Geoffrey Zubay. Publisher: McGraw Hill College.
3. Biochemistry: The Molecular Basis of Life ***By*** Trudy McKee and James R McKee. Publisher: McGraw-Hill Higher education.
4. Biochemistry: Biomolecules, Mechanisms of Enzyme Action and Metabolism Vol 1 ***By*** D Voet. John Wiley and Sons.
5. Biochemistry ***By*** U. S. Satyanarayana
6. Outlines of Biochemistry ***By*** Eric C Conn, PK Stumpf, G Bruening and Ray H. Doi. John Wiley & Sons.

16BCHO2 :Human Health and Nutritional Disorders

Note: Question 1 will be compulsory and will cover the entire syllabus in the form of short questions. Question 2 to 9 will include two questions from each unit and candidate will have to attempt one question from each unit. Overall, five questions to be attempted. All questions to carry equal marks.

MM. Th 80+IA 20

Unit I

*Food Physiology***:** Concept of balanced diet and energy content of foods; Basal and resting metabolism- influencing factors, Absorption of carbohydrates, lipids, proteins, nucleic acids, minerals and vitamins.

Common metabolic disorders: Diabetes mellitus, disorders of HDL-cholesterol, LDL-cholesterol, triglycerides, phenylketonuria, albinism.

Antioxidants: Free radicals: definition, formation in biological Systems. Natural anti-oxidants, defense against free radicals. Role of free radicals and antioxidants in health and disease.

Unit II

Vitamins: Dietary sources, biochemical functions and specific deficiency diseases associated with fat and water soluble vitamins; Hypervitaminosis symptoms of fat-soluble vitamins.

Minerals: Dietary sources and deficiency disorders of dietary calcium, phosphorus, magnesium, iron, iodine, zinc and copper.

Malnutrition and blood disorders: Etiology, clinical features, metabolic disorders and management of Marasmus and Kwashiorkor, Nutritional anemia - vitamin $B_{12,}$ folate and iron deficiency anemia; hemoglobinopathies and thalassemias.

Unit III

Obesity: Definition, classification and biochemical basis; Genetic and environmental factors leading to obesity; Obesity related diseases and management of obesity.

Cardiovascular disease: Diseases of Liver, Gall bladder & Pancreas-Hepatitis, (A, B, and C), alcoholic liver disease, Gall stones, pancreatitis, Prevention and dietary management.

Clinical significance of aspartate aminotransferase, alanine aminotransferase, lactate dehydro-genase, amylase, lipase and trypsin.Diagnosis of jaundice and clinical importance of bilirubin.

Suggested Readings for 16BCHO2: Human Health and Nutritional Disorders:

1. Textbook of Medical Biochemistry ***By*** MN Chatterjea and Rana Shinde, Jaypee Brothers.
2. Review of Medical Physiology (Lange Basic Science) (Paperback) ***By*** William F. Ganong. Publisher: McGraw-Hilll Medical
3. Clinical Biochemistry ***By*** Richard Luxton. Scion Publishing Ltd.
4. Principles of Medical Biochemistry: With STUDENT CONSULT Online Access (Paperback) ***By*** Gerhard Meisenberg and William H. Simmons. Publisher: Mosby.
5. Essentials of Food and Nutrition Vol I & II, ***By*** M. Swaminathan. Bangalore Printing and Publishing Co. Ltd.
6. Modern Nutrition in Health and Diseases, ***By*** Maurice E Shils and Vernon Robert Young, 7th Ed., Pub: Lea &Febiger.
7. Handbook of Nutrition and Food 2nd Ed., ***By*** Carolyn Berdanier, Johanna Dwyer and Elaine Feldman, CRC Press
8. Nutritional Biochemistry (Hardcover) ***By*** Tom Brody. Academic Press.
9. Nutritional Biochemistry (Paperback) ***By*** S Ramakrishnan and S. Venkat Rao. TR Publications
10. Nutritional Biochemistry and Metabolism: With Clinical Applications (Hardcover) ***By*** Maria C. Linder. Publisher: Appelton and Lange

DEPARTMENT OF BOTANY

Open Elective Paper: Plant Resource Utilization
Semester-II, III: Paper Code: 16BOTO1

MM. Th 80+IA 20
Time: 3 hrs.

Note: The examiner is required to set even questions in all. Question No. 1 will be compulsory and short answer type covering the entire syllabus. The remaining six questions will be set with two questions from each unit. The candidate will be required to attempt Question 1 and four more selecting at-least one from each unit.

UNIT-I

Origin of Agriculture, World Centres of Primary diversity of domesticated plants: Plant Introductions and Secondary Centres.
Botany, Cultivation, Harvesting and uses of Wheat and Rice.
Botany, Cultivation and uses of following fruits and vegetables: Mango, Apple, Banana, Potato, Alliums, Cabbage, Spinach and Tomato

UNIT-II

General Account of the Spices: Ginger, Turmeric, Cinnamon, Clove,
Beverage Plants: Source and general account of Tea and Coffee.
Legumes: Origin, Botany, Cultivation and uses of Pigeon pea, Chick pea, Cluster bean
Medicinal Plants: Plants as sources of drugs, parts used and uses.
Fibres: Types of fibres - Soft fibres, Hard fibres, Surface fibres, Brush fibres and Braiding fibres.

UNIT-III

Gums: Important commercial gums and their uses.
Tannins and Dyes: Sources and their uses.
Vegetable Oils and Fats: Distinction between fatty and essential oils. Drying (Soyabean and linseed), nondrying (Groundnut and Mustard oil) and Semi drying (cottonseed and Sunflower oil) oils and their uses.
Wood and its Uses: Soft woods and hard woods, wood as fuel, construction material
Genetic Resources and their conservation.

SUGGESTED READINGS

1. Anonymous. *National Gene Bank*: Indian Heritage on Plant Genetic resources (Booklet). National Bureau of Plant Genetic Resource, New Delhi. 1997.
2. Cobley, L.S. and W.M. Steels. *An Introduction to the Botany of Tropical Crop*

Plants.3rd Ed. The English Language Book Society and Longman, London. 1979.
3. Bole, P.V. and Y. Vaghani. *Filed Guide to Common Indian Trees.* Oxford University Press, Mumbai. 1991.
4. Chandel, K.P.S., G. Shukla and N. Sharma. *Biodiversity in Medicinal and Aromatic Plants in India: Conservation and Utilization.* National Bureau of Plant Genetic Resources, New Delhi. 1996.
5. Conway, G. and V.W.Rattan. *The Doubly Green Revolution. Food for all in the 21st Century*. Cornell Univ. Press. 1999.
6. Dastur, J.F. *Medicinal Plants of India and Pakistan.*3rd Ed. Meyerbooks. 1985.
7. Hill, A.F. *Economic Botany.* McGraw Hill Book Co. Inc., New York. 1986.
8. Kirtikar, K.R. & D.D. Basu. *Indian Medicinal Plants.* Vols. I & II. 2nd Ed. Lalit Mohan Basu, Allahabad. 1953.
9. Kochhar, S.L. *Economic Botany of the Tropics*.2nd Ed. MacMillan India Ltd., Delhi.
10. Leonard, W.H. & J.H. Martin. *Cereal Crops.* MacMillan Co., New York, USA. 824 pp. 1963.

(Open Elective Paper)
Fundamentals of Income Tax
Paper Code: 16COMO1

Maximum Marks: 100
Credits: 3:0:0 **Theory Marks: 80**
Time Allowed: 3 Hours **Internal Assessment Marks: 20**

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 8 small questions of equal marks. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry equal marks.

Unit-I

Introduction: Meaning of tax, scope, objectives, importance, Important terms-assessee, person, previous year, assessment year, income, gross total income, total/taxable income, casual income, agriculture income, company , tax evasion, tax avoidance, tax planning, tax management.

Unit-II

Determination of residential status and incidence of tax with reference to residential status of an individual; exempted incomes of an individual

Unit-III

Income from various heads (basic introduction only), clubbing of incomes, set of and carry forward of losses, Computation of gross total income and taxable income.

Unit-IV

Computation of tax liability of an individual; filling and filing of Income Tax Returns (ITR-I & II only).

Note:

1. The objective of this paper is to make the students familiar with the mechanism of Income Tax Law
2. The examiner is not required to ask the students to calculate income from various heads of an individual. The examiner is also required to give computed incomes from different heads in the question paper.
3. The actual amount of allowed deductions with section must be given clearly in the question.

Suggested Readings:

1. *Direct Taxes law & Practice – Dr. H.C.Mehrotra & Dr. S.P. Goyal, Sahitya Bhawan Publications, Agra.*
2. *Direct Taxes & Practice – Dr. V.K. Singhania Taxmann Publication.*
3. *Direct Taxes law & Practice – Dr. Bhagwati Prasad – Wishwa Prakashan, N.Delhi.*
4. *Simplified Approach to income Tax: Dr. Girish ahuja & Dr. Ravi Gupta – Sahitya Bhawan Publishes & Distributors, Agra.*

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

OPEN ELECTIVE COURSE

CYBER FORENSIC AND SECURITY

Paper Code: 16CSAO1

MM. Th 80+IA 20

Time: 3Hrs.

Note: Examiner will be required to set NINE questions in all. Question Number 1 will consist of total 8 parts (short-answer type questions) covering the entire syllabus and will carry 16 marks. In addition to the compulsory question there will be four units i.e. Unit-I to Unit-IV. Examiner will set two questions from each Unit of the syllabus and each question will carry 16 marks. Student will be required to attempt FIVE questions in all. Question Number 1 will be compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each Unit.

UNIT-1

Introduction to Information Systems: Types of information Systems, Introduction to information security, Need for Information security, Threats to Information Systems, Information Security Investigations.

Security threats - Sources of security threats- Motives - Target Assets and vulnerabilities – Consequences of threats- E-mail threats - Web-threats - Intruders and Hackers, Insider threats, Security Threats to E-Commerce, Cyber-crimes.

UNIT-2

Cyber Forensics: Cyber Security, Cyber Security roles, Cyber Security Principles, Difference between information Security and Cyber Security, Types of Computer Forensics Technology, Types of Military Computer Forensic Technology, Types of Law Enforcement: Computer Forensic Technology, Types of Business Computer Forensic Technology, Specialized Forensics Techniques, Hidden Data and How to Find It, Spyware and Adware, Encryption Methods and Vulnerabilities, Protecting Data from Being Compromised Internet Tracing Methods, Security and Wireless Technologies, Avoiding Pitfalls with Firewalls Biometric Security Systems

UNIT-3

Ethical Hacking: Essential Terminology, Hacking windows – Network hacking – Web hacking – Password hacking, Malware, Scanning, Cracking. Digital Evidence in Criminal Investigations: The Analog and Digital World, Training and Education in digital evidence, Evidence Collection and Data Seizure: Why Collect Evidence, Collection Options Obstacles, Types of Evidence, The Rules of Evidence, Volatile Evidence, General Procedure, Collection and Archiving, Methods of Collection, Artifacts, Collection Steps, Controlling Contamination: The Chain of Custody, Reconstructing the Attack, The digital crime scene, Investigating Cybercrime, Duties Support Functions and Competencies.

UNIT-4

Cyber Crimes and Cyber Security Standards: Crime incident Handling Basics: Cyber activism, Tracking hackers, clues to cyber-crime, privacy act, search warrants, common terms, organizational roles, procedure for responding to incidents, reporting procedures, legal considerations, Information Technology Act 2000: Scope, jurisdiction, offense and

contraventions, powers of police, adjudication, Intellectual property issues in cyberspace, ISO, Copyright Act, Patent Law, Cyber Laws in India.

Reference Books:

1. V.K. Pachghare, "Cryptography and Information Security", PHI Learning Private Limited, India.
2. William Stallings and Lawrie Brown, "Computer Security: Principles and Practice", Prentice Hall.
3. Swiderski, Frank and Syndex, "Threat Modeling", Microsoft Press.
4. John W. Rittinghouse, William M. Hancock, "Cyber Security Operations Handbook", ElsevierPub.
5. Deborah G Johnson, "Computer Ethics", 4th Edition, Pearson Education Publication.
6. Earnest A. Kallman, J.P Grillo, "Ethical Decision making and IT: An Introduction with Cases", McGraw Hill Publication.
7. Dr. Surya Prakash Tripathi, RitendraGoyal, Praveen Kumar Shukla, "Introduction to Information Security and Cyber Law", WilleyDreamtech Press.
8. Kenneth J. Knapp, "Cyber Security and Global Information Assurance: Threat Analysis and Response Solutions", IGI Global.
9. Cahnder, Harish, "Cyber Laws and Its Protection", PHI Learning Private Limited,Delhi,India
10. Michael E. Whitman, Herbert J. Mattord, "Principles of Information Security", Cengage Learning Pub.
11. Charles P. Pfleeger, Shari LawerancePfleeger, "Analysing Computer Security", Pearson Education India.
12. Joseph M Kizza, "Computer Network Security", Springer Verlag.

MAHARSHI DAYANAND UNIVERSITY, ROHTAK
DEPT. OF DEFENCE AND STRATEGIC STUDIES
Scheme of Examination
(As per Choice Based Credit System w.e.f. the academic year 2016-17)

Open Elective Offered by the Department

Paper Code	Sem.	Title of the Paper	Course Type	Theory marks	Internal Assessment Marks	Practical marks	Total Marks	Credits (L:T:P)
16DSSO1	2nd /3rd Sem.	National Security of India	OE	80	20	N.A.	100	3:0:0

OPEN ELECTIVE OFFERED BY THE DEPARTMENT
Of
Defence and Strategic Studies

SEMESTER-II/III

PAPER -01

PAPER CODE-16DSSO1

NATIONAL SECURITY OF INDIA

Maximum Marks: 100

Credits: 3:0:0 **Theory Marks: 80**

Time Allowed: 3 Hours **Internal Assessment Marks: 20**

INSTRUCTION FOR THE PAPER SETTERS

The Paper-Setters/Examiners will have to set Eight Question, selecting two from each out of Unit-I,II, III and IV. And one question consisting of Ten short answer type questions, without it any internal choice covering the entire syllabus be set in Unit V of the question Paper.

The Question Paper will consist of five units: I, II, III, IV and V. Unit-V will be compulsory. The first Four Units will contain two questions each from the respective syllabus and each question will carry 15 marks. Unit V of the question and will contain Ten short answer type question, with any internal choice and will cover the entire syllabus uniformly. Each short answer type question will carry Two marks. The Question Paper should be set strictly according to the syllabus. Separate marks for each question. Should be indicated in the question papers.

UNIT-I

1. **National Security Concepts:-**
   - a) **Definition of National Security, National Defence and National Interest.**
   - b) **Elements of National Security.**

UNIT-II

2. **National Security Structure:-**
   - a) **National Security Council and Cabinet Committee on Security affairs.**
   - b) **Armed Forces, Para-Military Forces.**

UNIT-III

3. Threats to Indian Security:-

a) Internal – Threats

b) External – Threats

UNIT-IV

4. India and Its Neighbours:-

a) India's Geo-Strategic Location

b) India's Relations with its neighbours

Books Recommended

1. Howard, Michael, "Theory and Practice of War"

2. Howard, Michael, "The Causes of War"

3. Bernard Black, L, "War and Its Causes"

4. Wright, Quincy, "A Study of War"

5. Mao-Tse-Tung, "Guerilla Warfare"

6. Legueur Walter, "Guerilla Warfare"

7. Robert E. Osgood, "Limited War – The Challenges to American Strategy".

8. Rees David, "Korea, the limited War"

9. Kitson Frank, "Low Intensity Operations, Subversion Insurgency, Peace keeping"

10. Osanka F.M., "Modern Guerilla Warfare"

11. Nasution, Abdul H., "Fundamentls of Guerilla Warfare"

12. Brodie, Bernard, "Strategy in the Missile Age"

13. Sampooraan Singh, "India and the Nuclear Bomb"

14. Tirpathi, K.S., "Evolution of Nuclear Strategy"

15. **Gupta, Rakesh, "Militarisation of outer-space"**

16. **Encyclopedia Britannica**

17. **Halperin Morton H., "Defence Strategies for the seventies"**

18. **Mir Publications, "Weaponary in Space, The Dilemma of Society"**

MA (Economics)

Semester-II

16ECOO1 - Basics of Economics (Open Elective Paper)

Max. Marks: 100 **Written Exam:80**

Time: 3 Hrs. **Internal Assessment: 20**

Unit -1

What is an Economy? Control problems f an Economy: What, how and for whom to produce, concept of production possibility function and opportunity cost.

Unit-II

Consumer's equilibrium – meaning of utility, marginal utility, conditions of consumer's equilibrium.

Unit-III

Demand, market demand, determinants of demand, demand schedule, price elasticity of demand, factors effecting price elasticity of demand.

Unit-IV

Cost and Revenue: Total cost, Total fixed cost, Total variable cost.
Average cost: Average fixed cost, average variable cost
Revenue- Total revenue and marginal revenue,-meaning their relationship

Note:

(A) Nine questions would be set in all.

(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight short answer questions of two marks each.

(C) There would be two questions (16 marks each) from each of four units.

(D) Candidates would be required to attend five questions (one compulsory and selecting one from each unit).

Reading List:

- D.N. Divedi: Principles of Economics, 2nd Edition, Vikas Publication House.
- R Dutta and K P M Sundaram: Indian Economy, S Chand
  A.N.Agarwal: Indian Economy, Problems of Development and Planning, New Age.
- Mishra and Puri: Indian Economy, Himalaya.

Semester-III

16ECOO2- Principles of Economics (Open Elective Paper)

Max. Marks: 100 Written Exam:80
Time: 3 Hrs. Internal Assessment: 20

Unit -1

Why study economics? The scope and method of economics; scarcity and choice; questions of what, how and for whom to produce and how to distribute output.

Unit-II

Indian Economy on the eve of Independence, British rule and its impact on Indian Economy, Emergence and development of Planning exercise in India – historical debates.

Unit-III

Trends and patterns in structure of population over time – growth rate, gender, rural-urban, literacy, regional; Structure and trends of Poverty and Inequality (interpersonal and regional); Inflation – trends, structure and causes; Unemployment – trends, structure and types.

Unit-IV

Trends in Agricultural Production and Productivity; Land Reforms – Genesis, Progress and current status; Green Revolution – Measures and its effects. Trends and Patterns of Industrial Sector; Changes in the structure of Indian Industry.

Note:

(A) Nine questions would be set in all.
(B) Question No. 1 based on the entire syllabus, would be compulsory. It would contain eight short answer questions of two marks each.
(C) There would be two questions (16 marks each) from each of four units.
(D) Candidates would be required to attend five questions (one compulsory and selecting one from each unit).)

Reading List:

- D.N. Divedi: Principles of Economics, 2nd Edition, Vikas Publication House.
- R Dutta and K P M Sundaram: Indian Economy, S Chand A.N.Agarwal: Indian Economy, Problems of Development and Planning, New Age.
- Mishra and Puri: Indian Economy, Himalaya.
- Planning Commission: Twelfth Five Year Plan, Vol I, II and III, Academic Foundation.
- Government of India: Economic Survey (latest issue)

OPEN ELECTIVE - I (FUNDAMENTAL ASPCETS OF EDUCATION)
16EDUO1

Time: 3 Hours **Max. Marks: 100**
Credits: 03 **(Theory: 80, Internal: 20)**

NOTE FOR PAPER SETTER

I Paper setter will set 9 questions in all, out of which student will be required to attempt 5 questions

II Q. No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type questions of 4 marks each to be selected from the entire syllabus.

III Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer questions will carry 16 marks each.

IV All questions carry equal marks

COURSE OBJECTIVES:

After completing the course, the students will be able to:

understand nature and functions of education and philosophy and their relationship

explain the meaning, types and scope of educational technology

acquaint the learner with the process of development and assessment and its implication in teaching learning process

develop an understanding of different stages of growth and development.

understand the concept of educational sociology and sociology of education.

acquaint students with the basics of social organization and its concept.

develop an understanding of different factors influencing social organization-folkways, mores, institutions; values.

COURSECONTENTS

UNIT – I

Education and Philosophy

Concept of Education and Philosophy.

Nature of Education and Philosophy.

Relationship of Education and Philosophy.

Need of Philosophical Foundations of Education.

Branches of Philosophy; Metaphysics, Epistemology and Axiology, their implications for Education; Philosophical redirection of educational research in recent times.

UNIT–II

Educational Technology. Meaning, Nature, Approaches, Types, Scope And Significance Of Educational Technology

Programmed Instruction: Concept, Principles and Styles of Programmed Instruction Development of Programmed Instructional Material.

ICT In Education; Computer Assisted Instruction, Computer Managed Learning And Process of development of Computer based instructional material, Web Integrated Learning.

E-Learning and Virtual classrooms.

UNIT-III

Developmental Aspects of the Learner

Educational Psychology: Concept and scope

Concept of Teaching and learning

Role of Educational Psychology in the Teaching –learning process

Concept of Growth and development and principles' of development and its implications to teaching and learning process.

Genetic epistemology of Jean Piaget.

Motivation: Need, types and how can a teacher motivate students for learning.

Factors affecting Learning.

UNIT – IV

Concept of Educational Sociology and Sociology of Education

Social organization and its concepts.

Factor influencing social organization-folkways, mores, institutions; values.

Dynamic characteristics of social organization and its educational implications.

Education as an investment.

Brain drain: Concept, factors responsible for Brain drain, how to check brain drain from our country.

Suggested Readings:

Andrews, T.W. (1961).Methods in Psychology, New York: John Wiley and Sons, Inc.

Baller, Warren R., Don, C.(1962). The Psychology of Human Growth and Development, New York: Holt, Rinehart and Winston.

Banerjee A.C. & Sharma S.R. (1999) : Sociological and Philosophical issues in Education, Jaipur : Book Enclave.

Bhushan, A & Ahuja, M. (1992), Educational Technology, Meerut : Vikas Publication.

Bloom, B.S. (1972), Taxonomy of Educational Objectives. A Hand Book- I (Cognitive Domain), New York: Devid Mokeay Campo.

Chauhan S.S.(1978), A Textbook of Programmed Instruction, New Delhi : Sterling Publishers.

Das, R.C.(1993), Educational Technology: A Basic Text, New Delhi: Sterling Publishers.

Dave, R.H (1969). Taxonomy of educational objectives and achievement testing; development of educational testing vol. 1. London: University of London Press.

Mangal. S.K. (2009). Essentials of Educational Technology. New Delhi: Prentice Hall of India pvt. Ltd.

Sharma, Hemant Lata (2014). Innovative inputs in ICT. Jalandhar: Amit Prakashan.

Sharma, Hemant Lata & Sharma, Savita (2010). Learning to Learn With Love : Theory and Practices of Co-operative Learning, New Delhi : Gagandeep Publication.

Pnadey, K.P.(1983). Perspective in Social Foundation of Education, Amitash Prakashan, Ghaziabad.

Kamat, A.R.,(1985).Education and Social Change in India, Samaiya Publishing Co., Bombay.

Maunheim, K.et al.,(1962). An Introduction to Sociology of Education. Routledge and Kegam Paul,London.

Mossish , Loor., (1972). Sociology of Education: An introduction, George Allen and Unwin, Londo

Walia J.A., (2011): Philosophical, Sociological and Economic Bases of Education, Jalandhar: Ahim Paul Publishers

.**M.Ed. (2016-18)**

16 EDU02
OPEN ELECTIVE - II (TRENDS AND CONCERNS OF TEACHER EDUCATION)

Time: 3 Hours **Max. Marks: 100**
Credits: 3 **(Theory: 80, Internal: 20)**

NOTE FOR PAPER SETTER

Paper setter will set 9 questions in all, out of which student will be required to attempt 5 questions

Q. No. 1 will be compulsory and will carry 16 marks. It will comprise of 4 short answer type questions of 4 marks each to be selected from the entire syllabus.

Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer questions will carry 16 marks each.

All questions carry equal marks

COURSE OBJECTIVES:

After completing the course, the students will be able to:

Develop an idea about the structure of secondary education in India.

Understand the recommendations of different education commissions regarding secondary & Senior Secondary education commissions.

Acquaint the students with the need, scope and purpose of educational management in terms of national needs.

make aware of the importance of making right choices in life, education, vocation etc.

develop and promote understanding of basic principles, areas, importance of guidance and counseling.

make students conversant with the practices of guidance and vocational choices.

understand the concept of teacher education along with its need and scope

understand the objectives of teacher education at elementary, secondary and higher education

develop understanding about the structure, curriculum and modes of pre- service teacher education and needs of innovation in pre-service teacher education programmes describe the need, concept and scope of teacher education and historical development with special emphasis on different documents.

develop in students an understanding of the concept and philosophy of inclusive education in different contexts

develop in students an understanding of the nature and types of diverse learners

enable students to analyze the trends and issues in inclusive education

COURSECONTENTS

UNIT- I

Introduction to Secondary & Senior Secondary Education

Meaning, Aims & Objectives of Secondary & Senior Secondary Education

Secondary Education in India- Historical perspectives, pre & post Independence

Recommendations of various committees and commissions: Secondary Education Commission, Kothari Commission, Programme of Action 1992, NPE 1986, Ramamurti Review Committee, Janardhan Reddy Committee, Yashpal Committee, RMSA & NCF-2005

Educational Management

Meaning, Concept & need for Educational Management at Secondary to Senior Secondary School Level

Management at Nation: MHRD,CABE, NCERT

UNIT – II

Introduction to Guidance

Guidance Movement in India: Pre & Post Independence.

Concept, Principles & Functions of Guidance.

Types of Guidance: Educational, Vocational, Social& Personal Guidance.

Group Guidance: Meaning, Objectives, Characteristics, Advantages, Problems, Principles & Techniques.

Contemporary Models of Guidance; Mathewson Model, Sholen's Model, Chapman Model & Hoyt's Model.

Introduction to Counseling

Concept, Principles, Techniques & Procedure of Counselling.

Approaches of Counseling: Directive, Non-Directive, Eclectic Counselling.

Theories of Counseling: Freud's Psychoanalytic, Behaviouristic, Gestalt

Skills of Counseling: Building Trust, Listening, Observation & Empathy

Counselor: Characteristics, Functions &Ethics

UNIT-III

Teacher Education Introduction to Teacher Education

Concept, Need and Scope of Teacher Education.

Historical Development of Teacher Education

Aims and Objectives of Teacher Education at:

i) Elementary Level.
ii) Secondary Level.
iii) Higher Level.

Pre- Service Teacher Education: Concept, Nature, Objectives and Scope.

In-service Teacher Education; concept, Need, Objectives and areas of Professional development.

Quality Assurance in Teacher Education

UNIT – IV

Inclusive Education for Children with Diverse needs

a) **Introduction to Inclusive Education**: Definition, concept and importance of Inclusive Education.

Concept of Access, Equity, Diversity, Human Rights & Social Justice.

Readiness of School, Principles and Models of Inclusion

b) Children with Diverse Needs

Definition and characteristics of children with sensory (hearing, visual and physically challenged) intellectual (gifted, talented and children mentally challenged children), developmental disabilities (autism, cerebral palsy, learning disabilities), social and emotional problems, scholastic backwardness, under-achievers, slow learners and other marginal groups.

Suggested Readings:

Aggarwal, J.C. (2008). Education in the Emerging Indian Society. Delhi: Shipra Publication.

Chauhan, S. (2012). Educational Management. New Delhi: Pearson Publication.

Sharma, R.A.(2009). Educational Administration & Management. Meerut:R Lal Book Depot.

Vashist, S.R. (2008). Educational Administration in India. New Delhi:Anmol Publication Pvt. Ltd.

Aggarwal, R. (2010). Elementary Guidance and Counselling , New Delhi: Shipra Publication.

Bala, Rajni.(2007). Guidance and Counselling: Modern Review, New Delhi: Afa Publication.

Chandra, R.(2009). Career information and Guidance and Counselling, Delhi:Isha Books.

Gibson, R. L. &Mitchell, M. (2008). Introduction Counselling and Guidance, New Delhi: PHI Learning Pvt. Ltd.

Kottler, J. A. & Shepard, D. S.(2008). Counselling Theories & Practices, Cenage Learning:1st Edition.

Rao, S N.(2006). Counselling and Guidance ,Delhi :McGraw hill Publication.

Rao, S. N.& Hari, H. S.(2004). Guidance and Counselling,New Delhi:Discovery Pub. House.

Saxena, A. (2006). Organization of Guidance Service ,Delhi: Rajat Publications.

Shrivastava, K.K. (2003). Principles of Guidance &Counselling , New Delhi : Kanishka Publishers. Singh, R. (2002). Educational & Vocational Guidance , New Delhi : Commonwealth
Publishers

Yadav, R.H. (2012). Guidance & Counselling , New Delhi: APH Publishing Corporation

National Curriculum Framework for Teacher Education; Towards Preparing Professional and Humane Teachers, (2009) NCTE. New Delhi.

Mangla, S. (2000). Teacher Education: Trends and Strategies. New Delhi : Radha Publishing.

MHRD (1986). National Policy of Education and Program of Action. New Delhi, Govt. of India.

MHRD (1992). Program of Action. New Delhi, Department of Education, Govt. of India.

Govt. of India (1992). Report of C.A.B.E... New Delhi: Committee Department of Education.

Kohli, V.K. (1992). Teacher Education in India, Ambala: Vivek Publishers.

N.I.E.P.A. (1984). Report on Status of Teachers, New Delhi.

Sharma, R.A. (2005). Teacher Education, Meerut: Loyal Book Depot.

Udyaveer (2006). Modern Teacher Training, New Delhi: Anmol Publications

Ahuja. A; Jangira, N.K. (2002). Effective Teacher Training; Coop erative Learning Based Approach. New Delhi National Publishing house.

Bartlett, L. D. and Weisentein, G. R. (2003). Successful Inclusion on for Educational Leaders . New Jersey: Prentice Hall.

Daniels, H. (1999). Inclusive Education. London: Koegan.

Gore, M. C. (2004). Successful Inclusion Strategies for Secondary and Middle School Teachers, Crowin Press: Sage Publications.

Hegarthy, S. & Alur, M. (2002). Education of Children with Special Needs : from Segregation to Inclusion, Corwin Press: Sage Publishers.

Jha, M. M. (2002). School without Wal ls: Inclusive Education for All. Oxford: Heinemann Education.

Karten, T. J. (2007). More Inclusion Strategies that Wor k . Corwin Press, Sage Publications.

Panda, K. C. (1997). Education of Exceptional Children. New Delhi: Vikas Publications.

Rayner, S. (2007). Managing Special and Inclusive Education , Sage Publications.

Sharma P.L (2003). Planning Inclusive Education in Small Schools, R.I E. Mysore

Semester –II

Open Elective

16ENVO1: Environmental Issues

MM. Th 80+IA 20 Time : 3 Hours.

Note: 1. Seven questions will be set in all.
2. Question No. 1 will be objective covering the entire syllabus & compulsory. The remaining six questions will be set with two questions from each unit. The candidate will be required to attempt five in total, Question I and four by selecting at least one from each unit.

Unit-1

Global Environmental Issues: Green House effect – causes and associated hazards, Ozone layer depletion – causes and associated hazards, Deforestation, Human Population Growth. Environmental problems associated with urbanization, industrialization, modernization of agriculture

Unit-2

Regional Environmental Issues: Forest and Wildlife management, desertification, reclamation of degraded land; Human intervention on wetlands, siltation and eutrophication, reclamation of wetlands, Mining and Environment, Open cast mining, Oil exploration and transportation, Deforestation and their impact on environment.

Unit-3

Pollution: Air Pollution : Causes of air pollution, Some important pollutants of air (CO, SO_X, NO_X and HC and Particulates) – their sources and effects on living and non-living organisms. Water Pollution: Sources of pollution of surface and ground water, Types of water pollutants. Solid Waste – Sources, characterization, disposal and management. Soil Pollution sources of soil pollution, Pollution and residual toxicity from the application of insecticides, pesticides and fertilizers; Soil erosion.

List of Recommended Books

1. Fundamentals of Environmental Science: G. S. Dhaliwal, G. S. Sangha and P. K. Raina, Kalyani Publication
2. Environmental Chemistry : A. K. De
3. Environmental Chemistry : B.K. Sharma, and H. Kaur
4. Fundamentals of Ecology : E. P. Odum
5. Environmental Science (6th ed) (1997): Jr. G. T. Miller, Wadsworth Pub. Co.

Semester –III
Open Elective

16ENVO2: Disaster Management Time : 3 Hours.
MM. Th 80+IA 20

Note: 1. Seven questions will be set in all.
2. Question No. 1 will be objective covering the entire syllabus & compulsory. The remaining six questions will be set with two questions from each unit. The candidate will be required to attempt five in total, Question I and four by selecting at least one from each unit.

UNIT- I

Disaster- Causes and phases of disaster, Rapid onset and slow onset disasters. Nature and responses to geo-hazards, trends in climatology, meteorology and hydrology. Seismic activities. Changes in Coastal zone, coastal erosion, beach protection. Coastal erosion due to natural and manmade structures.

UNIT- II

Floods and Cyclones: causes of flooding, Hazards associated with flooding. Flood forecasting. Flood management, Integrated Flood Management and Information System (IFMIS), Flood control. Water related hazards- Structure and nature of tropical cyclone, Tsunamis – causes and physical characteristics, mitigation of risks.

UNIT- III

Earthquakes: Causes and characteristics of ground-motion, earthquake scales, magnitude and intensity, earthquake hazards and risks, Volcanic land forms, eruptions, early warning from satellites, risk mitigation and training, Landslides.

Mitigation efforts: UN draft resolution on Strengthening of Coordination of Humanitarian Emergency Assistance, International Decade for Natural Disaster Reduction (IDNDR), Policy for disaster reduction, problems of financing and insurance.

Reference Books:

1. Bolt, B.A. Earthquakes , W. H. Freeman and Company, New York. 1988
2. Carter, N,W. Disaster Management: A Disaster Manager's Hand Book, Asian Development Bank, Manila. 1992
3. Gautam Ashutosh. Earthquake: A Natural Disaster, Ashok Publishing House, New Delhi. 1994
4. Sahni, P.and Malagola M. (Eds.).Disaster Risk Reduction in South Asia, Prentice-Hall of India, New Delhi. 2003.
5. Sharma, V.K. (Ed.). Disaster Management, IIPA, New Delhi. 1995.
6. Singh T. Disaster management Approaches and Strategies, Akansha Publishing House, New Delhi. 2006
7. Sinha, D. K. Towards Basics of Natural Disaster Reduction, Research Book Centre, New Delhi. 2006
8. Smith, K. Environmental Health, Assessing Risk and Reduction Disaster, 3rd Edition, Routledge, London. 2001 21

Food Adulteration

PAPER CODE: 16FTEO1

There will be seven questions in all. The first question will be compulsory and short answer type covering the entire syllabus. The remaining six questions will be set with two questions from each unit. The candidate will be required to attempt question 1 and four more selecting atleast one from each unit.

MM. Th 80+IA 20

Time: 3h

Unit I

Basic food groups, Function of foods and its general composition.

Food Quality & Safety, various aspects of food quality & safety, challenges of food safety.

Food adulteration and contamination, common food contaminants & adulterants

Unit II

Food Adulteration: Nature of adulterants, methods of evaluation of food adulterants and toxic constituents in foods, common food adulterants & their detection on various foods like

a) Milk and Milk products
b) Oils and fats
c) Spice and condiments
d) Wheat and other flours
e) Sugar and Preserve
f) Fruit and Vegetable products
g) Beverages Alcoholic and Non-Alcoholic

Unit III

Food Laws and Regulation: Prevention of Food Adulteration Act 1954, Food Safety and Standards Act (2006), Food Safety and Standards Authority of India (FSSAI), BIS, FPO, APEDA.

Recommended Books:

1. Gould, W.A and Gould, R.W. (1998). Total Quality Assurance for the Food Industries, CTI Publications Inc. Baltimore.
2. Furia, T.E. Ed. 1980. Regulatory Status of Direct Food Additives. CRC Press, Florida.
3. Rekha S. Singhal , Pushpa R. Kulkarni, Dananesh V. Rege, (1997). Hand Book of Indices of food Quality and Authenticity, wood head Publishing Ltd.
4. Siva Kiran, R.R. (2012). Manual for Detection of Common Food Adulterants, First Edition, IAPEN.
5. Battershal, J.P. (2013). Food Adulteration & its detection, General Books LLC.
6. Prevention of Food Adulteration Act, 4th Edition, Ashoka Law House, 2002

Open Elective Paper (offered by Department of Genetics)

Paper Code: 16GENO1 **Genetics &Society** **Credits: 3**

Internal Assessment Marks: 20

Time: 3 Hrs **Max. Marks: 80**

Instructions

There will be a total of seven questions. Question No. 1 will be compulsory and shall contain eight to ten short answer type questions without any internal choice and it shall cover the entire syllabus. The remaining six questions will include two questions from each unit. The students will be required to attempt one question from each of the four units. The students will attempt four questions in all.

Unit I

Basic principles of inheritance of characters, Chromosomes and genes, pedigree-gathering family history symbols, construction of pedigree ; Consanguinity and its effects; Sex linked anomalies: Haemophilia, Colour blindness; Sex limited and sex influenced traits.Human Health and Disease: Common syndrome according to numerical and structural alteration: Klinefilter, Down's, Turner, Achondroplasia,; Inherited enzyme defects in man: Albinism, Galactosemia; Multifactorial disorders: Diabetes, Schizophrenia, Huntington's disease, Alzheimer's disease; Methods of genetic testing, Prenatal diagnosis, New born screening;DNA fingerprinting:Paternity testing, Individual Identification.

Unit II

GM World: Green revolution, Application r-DNA technology in agriculture: Transgenic crops, Gene gun, GM foods, Ht, Bt and others, Concerns about bio-safety of genetically modified organism (GMO) (Allergen, toxicity, impact on biodiversity etc.); Indian regulatory system for testing of GMOs in laboratory, field trials and commercial release of transgenic ;potential benefits of GMOs.

Unit III

Microbial innovations in pharmaceutical, health, agricultural and industrial sectors; Strategies for selection and improvement of industrial strains of microorganisms;

Stem cell research, Cloning designer babies, Organ banking, Transgenic animals, Creating transgenic animals, In vitro fertilization, Genetic counseling and reproductive decisions, Eugenics;

Role of Genetics for the improvement of Health,Agriculture and environment.

Suggested books:

1. Principles of Genetics by D. Peter Snustad and Michael J Simmons
2. Genes in the Environment- Rosie S. Hails, Wiley-Blackwell Publications
3. The Science of Genetics by Alan G. Atherly, Jack R. Girton, John F. McDonald
4. Principles and branches of Medical Genetics, Emery and Rimoih, Churchill Livingstone, Newyork, Vol-1-3.
5. Industrial Microbiology, G. Reed (editor), CBS Publishers (A VI Publishing Company).
6. Modern Microbial Genetics (2002)-Streips U. N. and Yasbin R.E., Wiley-Liss
7. Plant Biotechnology (2006) - B. D. Singh, Kalyani Publishers
8. Plant Biotechnology-The Genetic Manipulation of Plants (2003) Slater A. Scott N. & Fowler M., Oxford University Press Inc Nigel Jen,
9. Animal Cell Biotechnology:Methods and protocols, Humana Press.
10. Genetics in Medicine 7th Ed (2007) - Thompson and Thompson, Saunders
11. Primose SB, Molecular Biotechnology, Panima, 2001

Open Elective Paper (offered by Department of Genetics)

Paper Code: 16GENO2 **FORENSIC SCIENCE** **Credits: 3**

Internal Assessment Marks: 20

Time: 3hrs **Max. Marks: 80**

Instructions

There will be a total of seven questions. Question No. 1 will be compulsory and shall contain ten short answer type questions without any internal choice and it shall cover the entire syllabus. The remaining six questions will include two questions from each unit. Students will be required to attempt one question from each unit.

Unit –I

Forensic Science: Definition of Forensic Science, Role of the Forensic Laboratory, History and Development of Forensic Science in India, Branches of Forensic Science. Administration and Organizational Setup: Brief introduction to DFSS, CFSL, GEQD, SFSL, RFSL, MFSL, FPB, NICFS, CDTS, NCRB and BPR&D. Educational qualifications and employment in Forensic Science Laboratory.

Unit –II

Forensic Evidences: Concise of Forensic Physical, Biological, Chemical and Psychological Sciences, types of cases and evidences involved. Laws and Principles of Forensic Science: Law of Exchange (Locard), Law of Individuality, Law of Comparison, Law of Progressive Changes and Law of Probability. Criminalistics: Definition, Securing & Searching methods, Documentation of crime scene. Methods of collection of forensic evidences, Role of Police at the Crime scene, scientific help at crime scene, handling of various types of crime scenes by police.

Unit –III

Basics of signature and handwriting comparison, fake currency note examination. Classification of Fingerprint patterns, cases involved methods of development and comparison of fingerprints. Forensic expert, Admissibility of Forensic testimony in Court of law, Frye and Daubert standards, Cross Examination, Ethics in Forensic Science. Accreditation of Forensic laboratories by NABL.

Suggested Books:

1. James, S.H and Nordby, J.J. (2003) Forensic Science: An introduction to scientific and investigative techniques CRC Press,
2. Saferstein : Criminalistics (1976) Prentice Hall Inc., USA.
3. Sharma, B.R. (1974) Forensic Science in Criminal Investigation and Trials, Central Law Agency, Allahabad, 1974.
4. J A Siegel, P.J Saukko (2000) Encyclopedia of Forensic Sciences Vol. I, II and III, Acad. Press

M.A. Geography Semester-II Session 2016-17 onwards
Open Elective: 16GEOO1
BASICS OF GEOINFORMATICS

Credit: 03 (3+0+0)
End Semester Exam: 80 marks
Internal Assessment: 20 marks
Total: 100 marks Time: 3hrs

Learning Objectives

This course is designed to give students an exposure to basics of geospatial technologies. It offers to learn the techniques of generation and management of earth surface information. An inter and multi disciplinary approach has been used to make subject interesting and useful for students. Latest technology of GPS is included to understand use of modern day navigation and surveying.

Learning Outcomes

Students will be able to learn the use of latest geospatial technology. It will help them to understand the spatial phenomena in a better manner with availability of real time and accurate information. These technologies being modern and interdisciplinary in nature will enable the students to apply this knowledge in various fields of life**.**

Unit – I

Aerial Photography
Aerial photography: history and development, advantages and limitations; Classifications of aerial photographs; Geometry of an aerial photograph; Scale of an aerial photograph; Availability and procurement of aerial photographs in India; Aerial photograph vs map.

Unit – II

Remote Sensing.
Introduction to Remote Sensing; electromagnetic radiation; stages of remote sensing; energy interactions in atmosphere; energy interactions with earth surface features and spectral signatures. Remote Sensing applications in land use/land cover, urban, environment, forest and disaster studies.

Unit – III

Remote Sensing
Remote Sensing platforms: airborne and space borne; satellite orbits: geostationary and near polar; Image data characteristics: resolutions- spatial, spectral, radiometric and temporal; Sensors and their types; Satellite missions of ISRO .

Unit – IV

GIS and GPS
Geographic Information System (GIS): definition and applications; GIS and remote sensing integration; components and elements of GIS; representation of earth surface features in GIS; introduction to Global Positioning System; GPS satellites constellations; GPS segments; Applications of GPS.

Note (i): Open Elective to be chosen from the basket of Open Electives (OEs) provided by the University.

(ii) The question paper will have five units. First four units of question paper will contain two questions from each unit. Candidate(s) are required to attempt one question from each unit. Unit-V shall be compulsory and shall contain eight short answer type questions covering entire syllabus. All questions carry equal marks.

Recommended Readings:

Paul Wolf, Bon DeWitt, and Benjamin Wilkinson. Elements of Photogrammetry with Application in GIS. USA: Mc-Graw Hill Education.2014.

Avery, T.E., and G.L. Berlin. Fundamentals of Remote Sensing and Airphoto Interpretation, Macmillan, New York.1992.

Campbell, J.B. Introduction to Remote Sensing, Guilford, New York.1996.

Curran, Paul J. Principles of Remote Sensing, Longman, London & New York. 1985.

Joseph, G. Fundamentals of Remote Sensing, Universities Press Hyderabad. 2005.

Lillisand, T.M. and P. W. Kiefer. Remote Sensing and Image Interpretation, New York. John Wiley & Sons.1986.

Burrough, P.A. and McDonnell, R.A. Principles of Geographic Information System. Oxford: Oxford University Press. 1998.

Chang, Kang-tsung. Introduction to Geographic Information Systems. New Delhi: Tata McGraw-Hill.2006.

Doberstein, Dan. Fundamentals of GPS Receivers: A Hardware Approach. New York: Springer

ऑपन इलेक्टिव

भारतीय साहित्य – ।।।

Paper Code: 16HNDO1

समय : 3 घण्टे

पूर्णांक : 100 अंक
आंतरिक मूल्यांकन : 20 अंक
लिखित परीक्षा : 80 अंक

खण्ड क

भारतीय साहित्य की सैद्धांतिक अवधारणा

भारतीय साहित्य का स्वरूप

भारतीय साहित्य के अध्ययन की समस्याएं

खण्ड ख

पाठ्य विषय

दीवान–ए–गालिब, संपा0–अली सरदार जाफरी, राजकमल प्रकाशन, नई दिल्ली।

(i) निर्धारित गजलें :

ये न थी हमारी किस्मत	21
कोई उम्मीद बर नहीं आती	162
दिले नादां तुझे हुआ क्या है	163
हजारों ख्वाहिशें ऐसी	220

(ii) रवीन्द्रनाथ की कहानियाँ (खण्ड ।), अनु0–रामसिंह तोमर, साहित्य अकादमी, नई दिल्ली

पाठ्यक्रम में निर्धारित कहानियॉ–
पोस्टमास्टर, काबुलीवाला, नष्टनीड़

(iii) 'खामोश अदालत जारी है' (नाटक) : विजय तेंदुलकर

(iv) संस्कार (उपन्यास) : यू0 आर0 अनंतमूर्ति

खण्ड ग

आलोच्य विषय

ग़ालिब की ग़ज़लों का काव्य–सौष्ठव

रवीन्द्रनाथ टैगोर की कहानियॉ–पाठ्यक्रम में निर्धारित कहानियों की मूल संवेदना एवं चरित्र चित्रण पर आधारित प्रश्न

'खामोश अदालत जारी है' : नाटक की मूल संवेदना, प्रमुख पात्रें का चरित्र–चित्रण, पितृसत्तात्मक व्यवस्था पर व्यंग्य, रंगमंच की दृष्टि से नाटक

संस्कार : उपन्यास का मूल प्रतिपाद्य, नामकरण, प्रमुख पात्रें का चरित्र चित्रण, उपन्यास का शिल्प–पक्ष

सहायक ग्रंथ :

1 बंगला साहित्य की कथा : हिंदी साहित्य – सुकुमार सेन, हिंदी साहित्य सम्मेलन प्रयाग सं0 2009
2 रवीन्द्र कविता कानन – सूर्यकांत त्रिपाठी निराला, राजकमल प्रकाशन, नई दिल्ली–1955
3 बंगला साहित्य का इतिहास, सुकुमारसेन, साहित्य अकादमी, नई दिल्ली–1970
4 फोर्ट विलियम कॉलेज, लक्ष्मीसागर वार्ष्णेय, इलाहाबाद विश्वविद्यालय, इलाहाबाद–1948
5 मध्यकालीन धर्म साधना, हजारीप्रसाद द्विवेदी साहित्य भवन, इलाहाबाद सं0 1013

निर्देश

1. खंण्ड क एवं ग में से छह आलोचनात्मक प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थी को किन्हीं तीन प्रश्नों का उत्तर देना अनिवार्य है । प्रत्येक प्रश्न 20 अंक का होगा। (20x3 = 60)

2. खण्ड ख में चार अवतरणों में से परीक्षार्थियों को किन्हीं दो अवतरणों की संदर्भ सहित व्याख्या करनी होगी। प्रत्येक व्याख्या के लिए 10 अंक निर्धारित है। (10x2=20)

HISTORY

Paper: **Nationalism In India**
Paper Code: 16HISO1

Max.Marks : 100
Theory : 80
I.A : 20
Time : 3 Hrs.

Note: Nine questions are to be set in all spreading into five units Each of the first four units shall contain two questions from each unit of the syllabus and Unit-V (Q. No. 9) which will be compulsory, shall contain eight short answer type questions (two marks each) covering the entire syllabus. The Candidates shall be asked to attempt five questions in all selecting one question from each unit including compulsory question. All questions shall carry equal marks.

Unit – I

1. Approaches to Indian Nationalism : Conceptual Debates.
2. Emergence of Organized Nationalism.

Unit-II

1. Trends till 1919
2. Gandhian Movements - Nature, Programme, Social Composition, Limitations and Challenges.

Unit-III

1. Revolutionary and Left Movements.
2. Subhash Bose and INA and Telengana.
3. States' Peoples' Movements.

Unit-IV

1. Working of Congress and Non-Congress Provincial Ministries.
2. Communal Politics and Partition.

Suggested Readings :

Desai, A.R.	:	Social Background of Indian Nationalism, Bombay, 1949
Tara Chand	:	History of the Freedom Movement Vol. I, II, III, IV (4 Vols.), Delhi, 1961
Majumdar, R.C.	:	History of Freedom Movement Vol. I, II, III, Calcutta, 1962-63
Chandra Bipan and others	:	Communalism in Modern India, New Delhi, 1987
"	:	Struggle for Independence of Indi, New Delhi, 1987
Dhankhar, Jaiveer S.	:	A Short History of Hindustan Socialist Republic an Association, Delhi, 2001
"	:	Prelude to Pakistan, Delhi, 2000
Mahrotra, S.R.	:	The Emergence of Indian National Congress, Delhi, 1971
Sarkar, S.	:	Modern India 1885-1947, New Delhi, 1983

Note : In addition, students are advised to consult the current Research Journals of History.

Paper: Survey of Sources of Indian History
Paper Code: 17HISO2

Max.Marks : 100
Theory : 80
I.A : 20

Note: Nine questions are to be set in all spreading into five units Each of the first four units shall contain two questions from each unit of the syllabus and Unit-V (Q. No. 9) which will be compulsory, shall contain eight short answer type questions (two marks each) covering the entire syllabus. The Candidates shall be asked to attempt five questions in all selecting one question from each unit including compulsory question. All questions shall carry equal marks.

Unit – I

Sources of Ancient India-I

a) Archaeological Sources

Stone Tools, Pottery, Coins & Inscriptions

b) Literary Sources

Vedic Literature, Epics (Ramayan & Mahabharat), Buddhist and Jain Sources

Unit-II

Sources of Ancient India-II

a. Harsacharita, Rajtaringini
b. Megasthanes, Al Beruni
c. Arthashastra

Unit-III

Sources of Medieval India

a. Ziauddin Barani: Fatwa-i-Jahandari
c. Babur : Tuzak-i-Baburi
d. Abul Fazal : Akbar Nama (3 Vols)

Unit-IV

Sources of Modern India

a. Archival Records
b. Private Papers: Officials and Non-Officials
c. Newspapers and Periodicals

Suggested Readings:

Sankalia, H.D.	:	Stone Age Tools, their Techniques and Uses (Pune, 1964)
Sircar, D.C.	:	Indian Epigraphy, (Delhi, 1965)
Puri, B.N.	:	India as Described by Early Greek Writers
Majumdar, R.C.	:	Classical Accounts of India, (Calcutta, 1960)
Pargiter, F.E.	:	Ancient Indian Historical Tradition, (London, 1922)
Winternitz, M.	:	History of Indian Literature 3 Vols, (New Delhi-1963-67)
Law, B.C.	:	India as Described in the Early Texts of Buddhism and Jainism
Birani, Ibn-i-Hasan	:	Maqalat-i-Barani-Karachi, (N.D.)
Akbar S. Ahmed	:	Discovering Islam: Making Sense of Muslim History and Society, (New Delhi, 1990.)
Elliot, Sir H.M. & J. Dowson	:	History of India as Told by its Own Historians, 8 vols., London, (1867-77)
Rosenthal, F.	:	History of Muslim Historiography, (Leiden, 1952)
Sarkar, Jagdish Narayan	:	History of History Writings in Medieval India, (Calcutta,1977)
Grewal, J.S.	:	Muslim Rule in India, The Assessment of British Historians, (Calcutta, 1970)
"	:	Medieval India: History and Historians, (Amritsar, 1975)
Ibn, Khaldum	:	Muqaddiman: An Introduction to History, Eng. Tr. Ero Franz Rosenthal, (London, 1958)
S.P.Sen (Ed.)	:	Historians and Historiography in Modern India, (Bombay, 1970)
Mukhia, Harban	:	Historians and Historiography During the Reign of Akbar, (New Delhi,1976)
Philips,C.H.(ed.)	:	Historians of India, Pakistan and Ceylon, (London,1961)
Publication Division, Ministry of I&B, Govt. of India	:	Gazetteer of India Vol.II (History & Culture)

FUNDAMENTALS OF MANAGEMENT
Course Code: 16IMSO1

MM: Th 80+IA 20

Time: 3 hours

Course Objective:
The objective of this course is to expose the students to basic concepts of management and to enable them to gain appreciation for emerging ideas, techniques, procedures and practices in the field of management.

Unit -I
Introduction: concept and nature of management; evolution of management thoughts – traditional, behavioural, system and contingency viewpoints

Unit -II
Planning, decision making and organizing: nature and elements of planning, planning types and models; strategic planning – an overview; basic issues in organizing – work specialization, chain of common delegation, decentralization, span of management, bases for departmentation

Unit -III
Leading: recognition of human factor, motivation models/approaches; leadership styles/behaviours, personal characteristics of effective leaders, leadership development

Unit -IV
Management control– concept and process, overview of control techniques, effective control system; evaluating corporate social performance; managing company ethics and social responsibility

Suggested Readings:

1. Robbins, S.P. and Decenzo, D.A. Fundamentals of Management , Pearson Education Asia, New Delhi
2. Hellreigel, Management, Thomson Learning, Bombay
3. Koontz, H and Wechrich, H; Management, Tata McGraw Hill
4. Stoner, J et. al, Management, New Delhi, PHI, New Delhi
5. Robbins & Coulter, Management, PHI, New Delhi
6. Satya Raju, Management – Text & Cases , PHI, New Delhi
1. Richard L. Daft, Management, Thomson South-Western

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

FUNDAMENTALS OF MARKETING
Course Code: 16IMSO2

MM: Th 80+IA 20

Time: 3 hours

Course Objective:
This course is designed to promote understanding of concepts, philosophies, processes and techniques of managing marketing operation and to develop a feel of the market place.

Unit -I
Nature and scope of marketing: corporate orientation towards marketplace; building and delivering customer value and satisfaction; retaining customers; marketing environment

Unit -II
Analyzing consumer markets and buyer behaviour; market segmentation, positioning and targeting; tools of product differentiation; marketing strategies in the different stage of the product life cycle

Unit -III
New product development process; product mix and product line decisions; branding decisions; pricing strategies; managing marketing channels; wholesaling and retailing

Unit -IV
Advertising and sales promotion; public relations; personal selling; evaluation and control of marketing effort; web marketing; green marketing

Suggested Readings:

1. Kotler Philip and Keller; Marketing Management; PHI, New Delhi
2. Kotler, Philip, Kevin Keller, A. Koshy and M. Jha, Marketing Management in South Asian Perspective, Pearson Education, New Delhi
3. Kerin, Hartley, Berkowtz and Rudelius, Marketing, TMH, New Delhi
4. Etzel, Michael J, Marketing: Concepts and Cases, TMH, New Delhi
1. Dhunna, Mukesh, Marketing Management – Text and Cases, Wisedom Publications, New Delhi

Instructions for External Examiner: The question paper shall be divided in two sections. **Section 'A'** shall comprise of eight short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. **Section 'B'** shall comprise 8 questions (2 questions from each unit). The students will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

Journalism and Mass Communication

(Open Elective) [for students of other Dept.)

16JRMO1

MEDIA & SOCIETY

2nd/3rd Semester

Marks: 100
Credits: 3:0:0 **Theory Marks: 80**
Time Allowed: 3 Hours **Internal Assessment Marks: 20**

Unit I

1. Media Definition
2. Relationship of Media in Society
3. Impact of Media on society- recent trends
4. Media and Social Development

Unit II

1. Media Literacy
2. Impact of Media on children and youth
3. Media and gender issues
4. Media and Rural Society

Unit III

1. Media and Violence
2. Media and Rising Crime
3. Media and Democracy
4. Media and development of Scientific temperament
5. Media and environmental issues

Unit IV

1. Media accountability

2. Media and Economic development
3. Media and Nation building
4. Popular culture and media

LL.M. SECOND SEMESTER EXAMINATION w.e.f. Session 2016-17

Open Elective (Constitutional Law)

PAPER CODE: 16LAWO2

MM: Th 80+IA 20

Time: 3 hours

NOTE FOR EXAMINER/PAPER SETTER

The question paper of each course will be divided into Five sections, each of the First Four Sections of the Question Paper will contain 2 questions respectively from Unit-1 to Unit-4 of the syllabus. The students will be required to attempt one question from each section. Section 5 of the question paper shall contain 8 short answer type questions of 3 marks each(without any choice) covering the entire syllabus. As such Section 5 will be compulsory. The examiner will be free to set the questions in problem forms based on case law.

NOTE FOR STUDENTS(ON QUESTION PAPER)

Attempt four questions from sections 1 to 4, selecting at least one question from each section. These questions shall carry 14 marks each. Section 5 is compulsory and each question in this section shall carry 3 marks.

UNIT-I

Preamble, Citizenship, Definition of State Under Art, 12. Rules of Interpretation under Art. 13
Leading Case: Mohmmad Raza V State of Bombay AIR 1966 , SC 1436

UNIT-II

Right to Equality(Art.14), Special Provision for Weaker Sections of the Society, Reservation Polity, Fundamental Freedoms under Art.19, Freedom of Press.
Leading Case: Indira Sawhney v Union of India, AIR 1993, SC 477

UNIT-III

Protection in respect of conviction of offcence (Act-20), Right to Life and Personal Liberty Article 21), Protection against Arrest and Detention (Art 22), Right against Exploitation (Art-23 & 24), Right to Religion (Art 25-28).
Leading Cases:Maneka Gandhi v Union of India, AIR 1978, SC 597

UNIT-IV

Cultural & Educational Rights of Minorities (Art.29 & 30), Right to Constitutional Remedies (Art, 32), Directive Principles of State Policy, Fundamental Duties.
Leading Case: T.M.A. Pai Foundation V State Karanataka AIR 2003 SC 355

BOOKS RECOMMENDED

Seervai, H.M.	: Constitutional Law of India
Hidayatullah, M.	: -do-
Tope, T.R.	: -do-
Shukla, V.N.	: -do-
Jain, M.P.	: Constitutional Law
Chander Pal	: Centre State Relations and Indian Cooperative Federalism
Chander Pal	: State Autonomy in Indian Federation: Emerging Trends
J.N.Pandey	: Constitutional Law of India

LL.M. THIRD SEMESTER EXAMINATION w.e.f. Session 2017-18

Open Elective (Family Law)

PAPER CODE: 16LAWO1

MM: Th 80+IA 20

Time: 3 hours

NOTE FOR EXAMINER/PAPER SETTER

The question paper of each course will be divided into Five sections, each of the First Four Sections of the Question Paper will contain 2 questions respectively from Unit-1 to Unit-4 of the syllabus. The students will be required to attempt one question from each section. Section 5 of the question paper shall contain 8 short answer type questions of 3 marks each(without any choice) covering the entire syllabus. As such Section 5 will be compulsory. The examiner will be free to set the questions in problem forms based on case law.

NOTE FOR STUDENTS(ON QUESTION PAPER)

Attempt four questions from sections 1 to 4, selecting at least one question from each section. These questions shall carry 14 marks each. Section 5 is compulsory and each question in this section shall carry 3 marks.

UNIT-I

Application of Hindu Law, Sources of Hindu, Schools of Hindu Law, Hindu Joint Family, Features of Mitakshra and Dayabhaga Joint Families, Coparcenary, Classification of Property, Karta of Joint Family, Position, Liabilities and Powers of Karta. Karta's powers of Alienation, Coparcener's Power of Alienation, Coparcener's Right to Challenge Improper Alienation, Alienee's Rights and Remedies

Leading Case: Harihar Prasad V Balmika Prasad AIR 1975 SC 733
K.S. Subhiah Pillai V Commissioner of IT AIR 1999 SC 1220

UNIT-II

The nature and concept of Hindu Marriage, Evolution of the Institution of Marriage, The Hindu Marriage Act, 1955, Essential Conditions for Valid Hindu Marriage, Ceremonies of Marriage, Registration of Hindu Marriages, Remedy of Restitution of Conjugal Rights, Void and Voidable Marriages, Judicial Separation and Divorce, Various Types of Grounds for Divorce and Judicial Separation, Fair Trial Rule, Legitimacy of Children, Jurisdiction, Bars to Matrimonial Remedies, Ancillary Reliefs, Permanent Alimony and Maintenance, Custody etc.

Leading Case: Kailishwati V Ayudhia Parkash AIR 1977 PLR 216
Naveen Kohli V Neelu Kohli, (2006) 4 SCC 558

UNIT-III

The Hindu Succession Act, 1956, Effects of the Hindu (Succession) Amendment, 2005, Rules of Succession to the Property of Hindu Male, Succession to the Property of Hindu Female, Succession to the Mitakshara Coparcener's Interest, General Rules of Succession, Partition, Subject Matter of Partition, Persons who have a Right to Partition & Right to Share, Persons who are entitled to Share, if, Partition takes place, Modes of Partition, How Partition is effected, Partial Partition, Reopening of Partition, Re-Union.

Leading Case: Raghuvamma V Chenchamma AIR 1964 SC 136
Commissioner of Income Tax V Chandersen, AIR 1986 SC 1753

UNIT-IV

The Hindu Minority and Guardianship Act, 1956, Concept of Minority and Guardianship, Natural Guardians and their Powers, Testamentary Guardian: Appointment and Powers, Certified Guardian, Defecto Guardian, Guardian By Affinity, The Hindu Adoption & Maintenance Act, 1956, Nature of Adoption, Essential Conditions for Valid Adoption, Effects of Adoption, Registration of Adoption, Maintenance As Personal Obligation, Maintenance of Dependents, Quantum of Maintenance, Maintenance As a Charge on Property

Leading Cases: G. Appaswami Chettiar V R.Sarangapani AIR 1978 SC 1051
Githa Hariharan V Reserve Bank of India(1999)2 SCC 228

BOOKS RECOMMENDED

Mulla	-	Principles of Hindu Law
Dr. Paras Diwan	-	Modern Hindu Law
Mayne's	-	Hindu Law and Usage
Dr. U.P.D.Kesari	-	Modern Hindu Law
Basant Kumar Sharma	-	Modern Hindu Law

Open Elective Course Offered by the Department of Library and Information Science

Sem	Course Code	Title of Course	Course Type	L-T-P	Marks			Duration	Credits
					Internal Assessment	Exam. Marks	Total Marks		
II[nd]	16LISO1	Academic Integrity and Plagiarism	O	3-0-0	20	80	100	3 Hrs	3
III[rd]	16LISO2	Information Sources and Literacy	O	3-0-0	20	80	100	3 Hrs	3

16LISO1: Academic Integrity and Plagiarism

MM: Th 80+IA 20
Time: 3Hrs.

Note
The paper is divided into 4 units. The candidates are required to attempt 5 questions in all selecting 1 question from each unit (out of two internal choices). Question 1 is compulsory consisting of 8 short answer type questions spread over the whole syllabus. All questions carry equal marks.

Objectives

to know about academic integrity;
to identify instances and types of plagiarism;
to get awareness about plagiarism;
to identify "fair use" applications to the use of someone else's materials;
to find information about the correct way to cite a reference;
to begin to develop your personal philosophy on academic integrity;
to be cautious enough to have deterrence strategies of plagiarism.

Outcomes
The course enables the students to get awareness about the nature and practice of academic integrity and its advantages. Further the completion of the course will guide the students and others to have deterrence policies and strategies to get away from plagiarism activities. After completion of the course, the learners will come to know, how citations are made properly. Over all awareness will be developed to maintain academic honesty with practical examples by the trainers.

Unit 1: Academic Integrity

Academic Integrity: meaning, definition and concept
Reasons: Individual reputation, personal integrity, professional competence, status or standing of the institution
Original writings and contribution to society
Writings and Impact: good and original writings bring credibility; good impact factors; writings meant for the readers and society

Unit 2:Plagiarism

Plagiarism basics: meaning, definition and concept
Plagiarism: concept, need and importance, definitions; types
Copyright and fair use
Hoes does it occur: intentional and unintentional; innocence vs. deception

Unit 3:Plagiarism Deterrence

Deterrence: avoidance, awareness
Guidelines: summarizing, paraphrasing, direct quotations, language and vocabulary
Citations: citation basics; citation styles: parenthetical and superscription
Style manuals : Chicago, APA, MLA, Harvard

Unit 4: Measures, initiative and university agencies

Research and Citation policies: formulation of research polices
Regular trainings & awareness; role of librarians; handling online resources
Anti-plagiarized software; Turnitin; I-authenticate; usefulness and limitations

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Suggested Readings

Cvetkovic, Vibiana Bowman & Anderson, Katie Elson (Eds.) (2010). *Stop plagiarism: a guide to understanding and prevention*. New York: Neel-Schuman.

Lampert, Lynn D. (2008). *Combating student plagiarism: an academic librarian's guide*. Oxford: Chandos.

Posner, Richard (2007). *The little book of plagiarism*. New York: Pantheon Books.

Roth, Lorie (1999). Educating the cut-paste generation. *Library Journal, 124*(18), pp.42-44.

Scalon, Patrick (2003). Student online plagiarism: how do we respond? College Teaching, *51*(4): pp. 161-65.

Swain, N.K. Publish or perish: What the Indian policy makers think about it? *University News*, 52.15 (April 14-20, 2014): pp. 23-28.

16LISO2: Information Sources and Literacy

MM: Th 80+IA 20
Time: 3Hrs.

Note
The paper is divided into 4 units. The candidates are required to attempt 5 questions in all selecting 1 question from each unit (out of two internal choices). Question 1 is compulsory consisting of 8 short answer type questions spread over the whole syllabus. All questions carry equal marks.

Objectives

to provide knowledge regarding information sources;
to impart practical knowledge to the students about the evaluation of reference and information sources; and
to make students aware about information literacy and search strategies

Outcomes
Through this course the students will come to know about the various types of information sources in print and electronic form. The students will have knowledge of various types of databases and how to evaluate them. After completion of the course, the students will know the importance of information literacy and various search strategies.

Unit 1:Information Sources

Information sources and types : documentary and non-documentary
Print information sources: primary, secondary, tertiary
Electronic information sources: primary, secondary, tertiary
Books: concept, parts: front matter, body, back matter; types
Journals: concept, types, impact factor, h-index
Theses: concept, parts

Unit 2:Databases

Full text databases: Science Direct, Emerald
Abstracting and indexing databases: Medline
Citational databases: Scopus, Web of Science
Theses databases: NDLTD, Shodhganga
Open access resources: DOAJ, DOAB

Unit 3: Evaluation of Information Sources

Evaluation criteria
Evaluation of following information sources (print and electronic): dictionary: Oxford groups; encyclopedia: International Encyclopedia of Social Science, McGraw Hill Encyclopedia of Science & Technology ; biographical sources: International Who's Who; yearbook: World of Learning ;statistical sources: Census of India
Evaluation of internet resources

Unit 4: Information Literacy

Information literacy: meaning, definition
Information literacy and lifelong learning
Nature of information requirement
Literature search
Search strategies and techniques

Suggested Readings

Eisenberg, Michael. *Information literacy: Essential skills for the information age*. 2nd ed. Westport Publ.: Libraries Unlimited, 2005.

Gates, Jean Key. (1988). *Guide to the use of Libraries and Information Sources* (6thed). New York: McGraw-Hill.

Katz, William A. (2002). *Introduction to Reference Work: Basic Information Services*. *Introduction to Reference Work:* V1. 8thed. New York: McGraw-Hill, 2002.

Katz, William A. (2002). *Introduction to Reference Work: Reference Services and Reference Processes*. V2. 8thed. New York: McGraw-Hill.

Open Electives to be offered by Department of Mathematics w.e.f. Even Semester of Session 2016-17

Course Code	Title of the Course	Theory Marks	Internal marks	Practical Marks	Credits (L:T:P)
To be offered in Even Semester					
16MATO1	Mathematical Techniques and Applications	80	20	--	3:0:0
16MATO2	Parametric and Non-Parametric Tests	80	20	--	3:0:0
To be offered in Odd Semester					
16MATO4	MATLAB	40	--	60	1:0:2
16MATO3	Statistical Tools using SPSS	50	--	50	2:0:1

16MATO1: Mathematical Techniques and Applications
(To be offered in Even Semester)

Time: 03 Hours
MM. Th 80+IA 20
Time: 2 h
Credits : 3:0:0

Section - I

Idea of Real Number System, Sets, Relations and functions.
Solutions of linear and quadratic equations; Logrithms and Exponents. Trigonometric functions.

Section - II

Concepts of limit, Continuity and Differentiation. Slope of a straight line.
Increasing and Decreasing functions, Maxima and Minima.

Section - III

Integration - Simple techniques including integration by substitution and by parts for algebraic, exponential and logarithmic functions, Definite integrals. Differential Equation- Solution of first order linear differential equation.

Section - IV

Measures of Central Tendency and Dispersion. Linear Correlation and Regression.

Note : The question paper will consist of **five** units. Each of the first four units will contain **two** questions from unit **I , II , III , IV** respectively and the students shall be asked to attempt **one** question from each unit. Unit five will contain **eight to ten** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Books Recommended:

1. Maurice, Weir D., Hass J., Frank, Giordano R., Thomas' Calculus, Pearson.
2. Strang, G., Calculus, Wellesley-Cambridge Press.
3. Heinbockel, J.H., Introduction to Calculus, Vol - 1., http://www.math.odu.edu/~jhh/Volume-1.PDF
4. Goon, A.M, Gupta, M.K and Dasgupta, B, Basic Statistics, World Press.
5. Gupta, S.P, Statistical Methods, Sultan Chand & Sons, New Delhi.

16MATO2: Parametric and Non-Parametric Tests

(To be offered in Even Semester)

Time: 03 Hours
MM. Th 80+IA 20
Time: 2 h
Credits : 3:0:0

Section - I

Parameter and Statistic: Sampling distribution of a statistic, standard error and its utility. Tests of significance: Null and alternative hypotheses, Two types of error, Critical region and level of significance, One-tailed and two-tailed tests, Critical values, Procedure for testing of hypothesis.

Unit -II

Large Sample Tests: Tests of significance for single proportion and single mean, for difference of two proportions, two means and two standard deviations, related confidence intervals for population parameters. Chi-square tests for goodness of fit, Test of independence of attributes.

Unit -III

t-test for single mean, difference of means, F-test for equality of two population variances, related confidence intervals. Applications of ANOVA for one-way and two-way classified data.

Unit -IV

Non-parametric tests: Advantages and drawbacks of non-parametric tests over parametric tests, One sample and two sample sign tests, Median test, Wilcoxon-Mann-Whitney test, One sample runs test, Spearman rank correlation test.

Note : The question paper will consist of **five** units. Each of the first four units will contain **two** questions from unit **I , II , III , IV** respectively and the students shall be asked to attempt **one** question from each unit. Unit five will contain **eight to ten** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Books Recommended:

1. Mood, A. M., Graybill, F. A. and Boss, D. C., Introduction to Theory of Statistics, McGraw-Hill.
2. Goon, A. M., Gupta, M. K. and Das Gupta, B., Basic Statistics, World Press.
3. Gupta, S.C. and Kapoor, V. K., Fundamentals of Mathematical Statistics, S. Chand Pub., New Delhi.
4. C. R. Kothari, Research methodology, New Age International Publishers.

16MATO3: Statistical Tools using SPSS

(To be offered in Odd Semester)

Time: 03 Hours ***Max Marks : T50+P50***

Credits : 2:0:1

Unit – I

Data: Qualitative and Quantitative Data, Cross-Sectional and Time series data, Univariate and Multivariate data. Scales of measurement of Data.

Frequencies, Bar charts, Pie Charts, Line Graphs, histograms, Measures of central tendency, dispersion, Skewness, Kurtosis, Box plots.

Unit – II

Concepts of Linear Correlation and Regression, Multiple Regression, Normality tests, t-tests, Chi Square tests, F-test, One way and Two way ANOVA.

Unit – III

SPSS Data File: Opening a data file in SPSS, SPSS Data Editor, Creating a data file, Editing and Manipulating data, Missing Values, Editing SPSS Output, Copying SPSS output, Printing from SPSS, Importing Data.

Charts and Graphs with SPSS: Frequencies, Bar charts, Pie Charts, Line Graphs, histograms,

Unit – IV

Descriptive Statistics with SPSS: Measures of central tendency, dispersion, Skewness, Kurtosis, Box plots.

Statistical tests using SPSS, Correlation and Regression using SPSS, Factor analysis using SPSS.

Note : The question paper will consist of **five** units. Each of the first four units will contain **two** questions from unit **I , II , III , IV** respectively and the students shall be asked to attempt **one** question from each unit. Unit five will contain **eight to ten** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Books Recommended:

1. Kothari, C.R., Research Methodology
2. Gupta, S.L. and Gupta, Hitesh, SPSS for Researchers, International Book House Pvt. Ltd.
3. Field, A., Discovering Statistics using SPSS, SAGE Publications.
4. Gupta, V., SPSS for Beginners, VJ Books Inc.
5. Rajathi, A. and Chandran, P., SPSS for you, MJP Publishers

Part-B (Practical)

Time: 03 Hours ***Max Marks : 50***

There will be a separate practical paper based on the above theory paper. All practicals are required to be done using SPSS.

16MATO4: MATLAB

(To be offered in Odd Semester)

Time: 03 Hours ***Max Marks : T40+P60***

Credits : 1:0:2

Section - I

Introduction to MATLAB Programming: Basics of MATLAB programming, Anatomy of a program, variables and assignments, data types, operators, working with complex numbers, mathematical operations, functions for input and output, good programming style.

Section - II

Introduction to vectors in Matlab: Defining a Vector, Accessing elements within a vector, Basic operations on vectors, strings, string functions, cell array, creating cell array, Introduction to Matrices in Matlab: Defining Matrices, Matrix functions, Matrix operations, vector functions

Section - III

Loops: for loops, while loops, Branching (conditional statements) - if statement, if else statement, else if statement, Executable files, subroutines, Built in functions and user-defined functions, function handles, function handles in m-files, inline functions.

Section - IV

Data files: Saving and recalling data, saving a session as text, C style read/write, Graphs and plots- Polar plot, plot3, mesh, contour, contourf, Using built-in algorithms: optimization and numerical integration (areas), Root-finding.

Note : The question paper will consist of **five** units. Each of the first four units will contain **two** questions from unit **I , II , III , IV** respectively and the students shall be asked to attempt **one** question from each unit. Unit five will contain **eight to ten** short answer type questions without any internal choice covering the entire syllabus and shall be **compulsory**.

Books Recommended:

1. MATLAB An Introduction With Applications 5ed, Author: Amos Gilat. Publisher: Wiley, ISBN13:. 978-1118629864.
2. Insight Through Computing: A Matlab Introduction to Computational Science and Engineering by C. F. Van Loan and K.-Y. D. Fan. SIAM Publication, 2009, ISBN: 978-0-898716-91-7.
3. MATLAB Programming, Y.Kirani Singh, B.B. Chaudhari, PHI Learning, 2007, ISBN 8120330811, 9788120330818.
4. An Introduction to Matlab, Krister Ahlersten, Bookboon.com, ISBN: 978-87-403-0283-7

M.Sc. Medical Biotechnology Semester -II

Course Title: Principles of Medical Biotechnology-I

MM. Th 80 + IA 20 **Course Code: 16MBTO1** **Time: 3h**

NOTE: The examiner is required to set seven questions in all. Question No. 1 will be compulsory and short answer type covering the entire syllabus. The remaining six questions will be set with two questions from each unit. The candidate will be required to attempt Question 1 and four more selecting at-least one from each unit.

Theory

Unit -I

Innate and acquired immunity. Nature and Biology of antigens and super antigens. Antibody structure and function. Antigen - antibody interactions, ELISA, RIA, Western blot, Immunoprecipitation, Inflammation- Acute and chronic inflammation, Hypersenstivity. Blood group – ABO and Rh. Haemoglobin – Structure, biosynthesis and catabolism.

Unit -II

Different types of anaemia and their causes (Deficiency of iron, B12 and folic acid, hemolytic, aplastic and genetic disorders). Homeostasis – factors, mechanism, anticoagulants, procoagulants. Host microbe interactions, entry of pathogens, growth and multiplication of the pathogens, Endotoxins, Collection and transport of specimens for diagnosis

Unit -III

Methods of antimicrobial activity determination, types of epidemiology, tools of epidemiology, Recognition of an infectious disease in a population, types of epidemics, control of epidemics. General properties of viruses, viral multiplication, viral hemagglutination, Cultivation of viruses, Classification and nomenclature of viruses, host response to virus infection

Recommended Books

1. John E. Hall, Medical Physiology by Guyton, Saunders, 12th edition
2. Mims' Medical Microbiology By (author) Richard Goering, By (author) Hazel Dockrell, By (author) Mark Zuckerman, By (author)Ivan M. Roitt, By (author) Peter L. Chiodini Saunders (W.B.) Co Ltd.
3. Benjamin E. (1996), Immunology - A short course 3rd Edition, John Wiley, New York
4. Kuby J. (1997), Immunology, 3rd Edition, W.H. Freeman & Co., New York
5. Roitt, I.M. (1997), Essential Immunology, 9th Edition, Oxford Black Well Science, London
6. Tizard I.R. (1995), Immunology - An introduction, 4th Edition, Philadephia Sauders College press.

M.Sc. Medical Biotechnology Semester -III

Course Title: Principles of Medical Biotechnology II

MM. Th 80 + IA 20 **Course Code: 16MBTO2** **Time: 3h**

NOTE: The examiner is required to set seven questions in all. Question No. 1 will be compulsory and short answer type covering the entire syllabus. The remaining six questions will be set with two questions from each unit. The candidate will be required to attempt Question 1 and four more selecting at-least one from each unit.

Theory

Unit – I

Cloning vectors- Plasmid, cosmid, phagemid,phasmid, bacteriophages YAC, BAC, HAC; Shuttle vectors; Recombinant – production, identification and selection; Restriction endonucleases, Ligases; Hybridization; Linkers and adaptors; DNA Transformation and transfection methods; Cell expression system; Human genome project

Unit – II

PCR and its variant; Blotting- Southern, northern & western; Genomic and cDNA library;; DNA Footprinting ; Gene therapy, Gene knockout, Tissue engineering.

Animal Cell Culture: Introduction and Application of animal cell culture. Equipments, materials, culture vessels for animal cell culture, Primary and established cell line cultures

Unit – III

Basic biology of stem cells; Types & sources of stem cells, Blood cell formation from Bone marrow stem cells, Isolation & characterizations of stem cells, Cancer stem cells, Induced pluripotent stem cells, Stem cell banking, Therapeutic application of stem cells.

Recommended Books

1. R. Lanza, J. Gearhart et al (Ed), Essential of Stem Cell Biology, Elsevier Academic press.

2. R. Lanza, I. Weissman, J. Thomson, and R. Pedersen, Handbook of Stem Cells, TwoVolume, Volume 1-2: Volume 1-Embryonic Stem Cells; Volume 2-Adult & Fetal Stem Cells, 2012, Academic Press.
3. Culture of Animal Cells- A manual of basic techniques by R.I. Freshney
4. Animal Cells Culture and Media, D.C.Darling and S.J.Morgan, 1994. BIOS Scientific Publishers Limited.
5. Gene cloning and DNA analysis - An Introduction (2006) 5th edition, T.A Brown, Blackwell publisher.
6. Essential genes (2006), Benzamin Lewin, Pearson education international.
7. Genome-3 (2007) T.A Brown. Garland science, Taylor & Francis, NewYork.
8. Principles of gene manipulation and Genomics (2006) 7th edition, S.B Primose and R.M Twyman, Blackwell publishing.
9. Principles of Genetic Engineering (2009), Mousumi Debnath, pointer publisher, Jaipur.
10. Molecular Biotechnology-Principles and Applications of Recombinant DNA (2003) 3rd edition, Bernard R Glick and Jack J pasternak. ASM press, Washington.
11. Human Molecular Genetics (2004) 3rd edition, Tom Strachan & Andrew P Read, Garland science.

(SEMESTER-II)

Open Elective: 16MCBO1: Microbial World: Diversity and applications ***Time:*** ***03 Hours***

MM. Th 80+IA 20

Time: 2 h

Credits : 3:0:0

Note: The question paper will consist of 9 questions. Students will have to attempt 5 questions in total - Question no. 1 will comprise of short answer questions covering the entire syllabus and will be compulsory. Two questions to be set from each Unit and students will have to attempt one from each Unit.

Unit – I

Systematics&Biodiversity:Classification and nomenclature of microorganism.Salient featuresof different groups: Acellularmicroorganisms (Viruses,Viroids, Prions) and Cellular microorganisms (Bacteria, Algae, Fungi andProtozoa) in reference to their distribution and occurrence, morphology, mode ofreproduction and economic importance.

Unit – II

Characteristics of extremophiles:Thermophiles, Methanophiles, Alkalophiles, Acidophiles, Halophiles and Barophiles: Classification, habitats, ecological aspects andapplications.

Unit – III

Microbiological techniques:Preparation of culture media, Pure culture isolation; cultivation,maintenance and preservation/stocking of pure cultures; cultivation of anaerobicbacteria, and accessing non-culturable bacteria. Physical and Chemical methods for the control of microorganisms

Unit – IV

Scope of Microbiology:Role of microorganisms in Food industry, Pharmaceutical industry, Production ofIndustrial enzymes, Agriculture: bio-fertilizers, bio-pesticides. Environment:bioremediation, bioleaching

Suggested readings:

1. Brock TD., Milestones in Microbiology, Infinity Books.
2. Pelczar M.J., Chan E.C.S. & Kreig N.R., Microbiology: Concepts and Application.,Tata McGraw Hill.
3. Stainier RY, Ingraham JL, Wheelis ML & Painter PR General Microbiology, Publisher: MacMillan.
4. Madigan M.T., Martinko J.M. and Parker J., Brock Biology of Microorganisms: Prentice-Hall , Inc USA.
5. Atlas R.M., Principles of Microbiology, Wm C. Brown Publishers.
6. Vandenmark P.V. and Batzing B.L., The Microbes – An Introduction to their nature and Importance: Benjamin Cummings. Microbiology

(SEMESTER-III)

Open Elective: 16MCBO2 : Microbial Technology for Entrepreneurship

Time: 03 Hours
MM. Th 80+IA 20
Time: 2 h
Credits : 3:0:0

Note: The question paper will consist of 9 questions. Students will have to attempt 5 questions in total - Question no. 1 will comprise of short answer questions covering the entire syllabus and will be compulsory. Two questions to be set from each Unit and students will have to attempt one from each Unit.

Unit I

Commercial Microbial Products; Introduction to bioprocess development- upstream development, downstream process, Preservation and improvement of industrially important microorganisms, Strain development by mutagenesis, protoplast fusion and Genetic engineering.

Unit II

Raw materials and media formulation for microbial culture; batch, fed batch and continues mode of bioprocess, Types of Bioreactors and their applications: Stirred tank bioreactor & Specialized bioreactors.

Unit III

Downstream process, Choice of bioprocess plant location; Methods of estimation of Capital Cost and Operational costs of bioprocess plant, Good Lab Practices (GLP) and Good Manufacturing Practices (GMP).

Unit IV

Introduction to Bioentrepreneurship; Factors necessary for Entrepreneurship; Attributes in an Entrepreneur; Market Assessments; Managing Technology transfer and Intellectual property in biotechnology in India, Licensing of Biotechnological invention, Funding agencies in India, Basics of Patents- Types of patents; Filing of a patent application.

Suggested readings:

1. Handbook of Bioentrepreneurship by **Patzelt**, Holger, **Brenner**, Thomas (Eds.) Publisher:
2. SpringerBiotechnology. A Textbook of Industrial Microbiology, by W. Crueger and A. Crueger. Publisher: Sinauer Associates.
3. Industrial microbiology by G. Reed, Publishers: CBS
4. Bioprocess Engineering Principles by P. Doran. Publisher: Academic Press.

Biochemical Engineering Fundamentals by J.E. Baily and D.F. Ollis. Publisher: McGraw Hill

M.Sc. Physics Semester II
Open Elective – I Sources of Energy – I

PAPER CODE: 16PHYO1

Theory Marks: 80
Internal Assessment: 20
Time: 3 hours

Unit I

Introduction

Limitation of conventional energy sources, need and growth of alternative energy sources, basic scheme and application of direct energy conservation.

Solar Cells:

Solar energy: Introduction, The characteristics of the sun, Definitions related to solar radiations, solar radiation geometry, Estimation of daily solar radiation. Theory of solar cells. Solar cell materials, solar drying, solar furnaces, Solar cooking, solar green house technology, solar thermal power generation, solar cell array.

Unit II

Solar Thermal Energy:

Solar radiations, flat plate collectors and their materials, applications and performance, focusing of collectors and their materials, applications and performance; solar thermal power plants, thermal energy storage for solar heating and cooling, limitations.

Unit III

Geothermal Energy:

Resources of geothermal energy, thermodynamics of geo-thermal energy conversion-electrical conversion, non-electrical conversion, environmental consideration, estimates of geothermal power, nature of geothermal fields, advantages & disadvantages of geothermal energy forms, applications of geothermal energy. Geothermal power plant.

Fuel Cells:

Principle, working of various types of fuel cells, performance and limitations.

Unit IV

Wind Energy:

Wind power and its sources: Principle of working of Wind Energy, performance and limitations of energy conversion systems. Site selection, criteria, momentum theory, wind characteristics.

Text / References Books:

1. John Twideu and Tony Weir, "Renewal Energy Resources" BSP Publications, 2006
2. M.V.R. Koteswara Rao, "Energy Resources: Conventional & Non-Conventional" BSP Publications, 2006.
3. D.S. Chauhan, "Non-Conventional Energy Resources" New Age International.
4. C.S. Solanki, "Renewal Energy Technologies: A Practical Guide for Beginners" PHI Learning.
5. Peter Auer, "Advances in energy system and Technology" Vol I & II Edited by Academic Press.
6. G.D. Rai, "Non-conventional Energy sources" Khanna Publishers
7. Raja A.K., "Introduction to Non-Conventional Energy Resources" Scitech Publications.

Fahrenbruch and Bube, "Fundamentals of Solar cells. Photovoltaic Solar Energy"

M.Sc. Physics Semester III

Open Elective – II

Sources of Energy –II

PAPER CODE: 16PHYO2

Theory Marks: 80
Internal Assessment: 20
Time: 3 hours

Unit I

Bio-mass:

Introduction of biogas, Availability of bio-mass and its conversion theory, classification of biogas plants, principle & working of floating drum plant & fixed dome type plant- advantages & disadvantages. Biogas from plant waste, community biogas plants, utilization of biogas.

Unit II

Ocean Thermal Energy Availability, theory and working principle, performance and limitations.

Wave and Tidal Wave:

Principle, working, performance and limitations.

Unit III

Petroleum and Coal energy

Petroleum, origin, composition, production, extraction, octane number, kerosene, LPG, lubricants natural gas, physical properties and uses of coal, generis of coal, molecular structure, determination of fixed carbon content, coal for generation of electricity, zero emission power plants, coal reserves and mining.

Unit IV

Nuclear Energy

Nucleus and its constituents, charge mass, isotopes, isobars, mass defect, binding energy and nuclear stability, radiation and nuclear reactions.

Nuclear fission, chain reaction, U^{235}, U^{238}, controlled nuclear fission and nuclear reactors, fast breeder reactor, nuclear fusion, condition for nuclear fusion reaction, Hydrogen bomb, Nuclear bomb

Text / References Books:

1. John Twideu and Tony Weir, "Renewal Energy Resources" BSP Publications, 2006
2. M.V.R. Koteswara Rao, "Energy Resources: Conventional & Non-Conventional" BSP Publications, 2006.
3. D.S. Chauhan, "Non-Conventional Energy Resources" New Age International.
4. C.S. Solanki, "Renewal Energy Technologies: A Practical Guide for Beginners" PHI Learning.
5. Peter Auer, "Advances in energy system and Technology" Vol I & II Edited by Academic Press.
6. Raja A.K., "Introduction to Non-Conventional Energy Resources" Scitech Publications.
7. G.D. Rai, "Non-conventional Energy sources" Khanna Publishers

DEPARTMENT OF PUBLIC ADMINISTRATION, MDU
ROHTAK

List of Open elective :

M.A. Semester Semester II (w.e.f. the session 2016-17) -CBCS

AND

M.A. Semester Semester III (w.e.f. the session 2017-18)- CBCS

Sr. No.	Nomenclature of the Course	Course Code	Offered by the Department	Offered for Semester
1	Administrative Literacy	16PUBO1	Public Administration	2nd Semester
2	Environment Protection Administration	16PUBO2	Public Administration	3rd Semester

SYLLABUS : M.A.(P) Sem-II Open Elective

Paper Code- 16PUBO1

Administrative Literacy

Total Credit: 4+0+0 =4

L+T+P

Total Marks = 100

Semester End Exam = 80

Internal Assessment = 20

Time = 3 hrs.

Note:

The question paper will consist of 5 units containing 9 questions. The students are required to attempt one question from each unit. Question no 9 consisting of eight short answer questions covering entire syllabus, is compulsory.

Unit-I

Administrative Structure at Central Level – Office of President, Prime Minister's Office, Cabinet Secretariat & Central Secretariat

Unit-II

Administrative Structure at State Level – Office of Governor, Chief Minister's Office, State Secretariat & Chief Secretary

Unit-III

Administrative Structure at Division & District Level: Divisional Commissioner, Deputy Commissioner, Superintendent of Police, District Rural Development Agency, Haryana Urban Development Authority, District Development & Panchayat Officer

Unit-IV

Flagship Programmes of Central Government: Mahatma Gandhi National Rural Employment Guarantee Scheme, Rashtriya Swasthya Bima Yojana, Pradhan Mantri Kaushal Vikas Yojana, Mid-day Meal, Integrated Community Development Scheme,Targeted Public Distribution System.

Suggested Readings:

1. Maheshwari, S.R., Evolution of Indian Administration, New Delhi: Orient Longman, 1974.
2. Maheshwari, S.R., Indian Administration, New Delhi: Orient Longman.
3. Arora, R.K. and Rajni Goyal, Indian Public Administration, New Delhi: Wishwa, 1997..
4. Misra, B.B., The Central Administration of East India Company, London: Manchester Press, 1959..
5. Sarkar, J.N., Mughal Administration, Calcutta: M.C. Sarkar, 1935.
6. Ray, Anirudh , Some Aspects of Mughal Administration, New Delhi: Kalyani 1984.
7. Khosla, R.P., Administrative Structure of the Great Mughals, Delhi: Kanti Publications, 1991.
8. Prasad K. Nayak, S. Sen and G.S. Mansukhani (Eds.), Indian Administration, New Delhi: Unique Publishers, 2007
9. Fadia, B.L., Indian Administration, Agra: Sahitya Bhawan, 2007.
10. Chand Ashok, Indian Administration, London: Allen and Unvin, 1967.
11. Singh Hoshiar, Indian Administration Allahabad: Kitab Mahal, 1998.

12 Kataria, Surender , Indian Administration, Jaipur: RSBA

13 Maheshwari, S.R., State Governments in India, New Delhi: Macmillan, 2000.

14 Padhi, A .P. State Administration in India, Delhi: Uppal, 1998.
15 Sharma, Ashok, Bharat Mein Prashashnik Sansthan, Jaipur: RSBA, 2003.
16 Arora, Ramesh and Geeta Chaturvedi, Bharat Mein Rajya Prashashan, Jaipur,
RSBA, 2001
17 Sharma, Harish Chander, State Administration in India (Hindi) Haipur:
College Book Deport, 2002.

SYLLABUS : M.A. (P)) Semester-III **Open Elective**

Paper code 17PUBO2

Environment Protection Administration

w.e.f. 2017-18

Total Credit: 4+0+0 =4

L+T+P

Total Marks = 100

Semester End Exam = 80

Internal Assessment = 20

Time = 3 hrs.

Note:

The question paper will consist of 5 units containing 9 questions. The students are required to attempt one question from each unit. Question no 9 consisting of eight short answer questions covering entire syllabus, is compulsory.

Unit-I

Environment: Meaning, definition, scope and significance
Environment Ethics
Environment Challenges in India

Unit-II

Environment Protection: Meaning, Definition and Significance.
Environment Protection Act, 1986
Bio-Diversity and its Conservation
Bio-Diversity Conservation Act, 2002

Unit-III

Environment Pollution, Meaning, causes, effects and control mechanism
Types of pollution, Environment Education, Air Pollution (Prevention and Control) Act, 1981

Water Pollution (Prevention and Control) Act, 1974

Unit-IV

Environmental Issues:
People's Participation in Environment Protection
Role of NGO and Panchayats in Environment Protection
Environment Management

Suggested Readings:

1. Murthy,D.B.N. Environmental Awareness & Protection : A Base Book on EVS, New Delhi: Deep & Deep, 2004
2. Radha , S. & A.S. Sankhyan, Environment Challenges of the 21st Century, New Delhi : Deep & Deep, 2004.
3. Tiwari, A.K., Environmental Planning and Management, New Delhi : Deep & Deep, 2006.
4. Murthy,D.B.N., Environmental Planning and Management, New Delhi : Deep & Deep, 2005
5. Garg, Bansal and Tiwari, Enviornment Pollution & Protection, New Delhi, Deep & Deep, 2006
6. Verma S.B. and S.K. Singh, Environment Protection and Development, New Delhi : Deep & Deep 2005
7. Singh, P.P. & S. Sharma, Teaching of Environemtn, New Delhi: Deep & Deep, 2004
8. Tiwari, K.L. and S.K. Jadhav, Paryavaran Vigian, New Delhi: I.K. International, 2009.
9. Chatterjee, Benimadhab , Environmental Laws: Implementation Problems and Perspectives, New Delhi, Deep & Deep, 2002.
10. Venkat, Aruna , Environmental Law and Policy, New Delhi, PHI Learning,

2011.
11. Upadhayay, Jai Jai Ram , Pryavaran Vidhi, Allahabad, Central Law Agency,
2013.
12. Sengar, Dharmendra S., Environmental Law, New Delhi, PHI, 2012.

13. Tiwari K.L and S.K. Jadhav, Paryavaran Vigian, New Delhi, I.K. Internation,
2009.
14. Ganesamurthy, V.S., Enviornmental Status and Policy in India, New Delhi:
New Century Publications, 2011.

Open Elective Courses

Department of Political Science CBCS
(w.e.f 2016-17)

Sr. No.	Nomenclature of the Course	Course Code	Offered by the Department	Offered for Semester	
1.	Disaster Management	16POLO1	Political Science	2nd Sem	
2.	Disaster Management	16POLO2	-do-	3rd Sem	

M.A. Political Science
Semester II
(16POLO1)

Paper: Disaster Management-I (Open Elective A)

Max. Marks : 100

Theory Paper : 80
Internal Assessment : 20
Time : 3 Hrs

Note:

The question paper will be divided into five units carrying equal marks i.e. 16 marks. Students shall be asked to attempt one out of two questions from each unit. Unit five shall contain eight short answer type questions without any internal choice and it shall be covering the entire syllabus. As such, all questions in unit five shall be compulsory.

UNIT I

Disaster Management: Meaning, Concepts, Principles, Scope, Objectives and Approaches

Elements of Disaster Management

UNIT II

Disaster Mitigation: Hazard Assessment, Vulnerability Assessment, Risk Assessment, Protective Measures and Public Information

Disaster Preparedness: Disaster Plan, Damage Inspection, repair and Recovery procedures, Communication and Control Centers, Disaster Forecasting, Warning and Prediction

UNIT III

Disaster Relief: Rapid Damage As operations, Evacuation and Shelter, Media Coverage, Relief Aid, Maintain

UNIT IV

Reconstruction Planning: Meaning an Economic and Social Rehabilitation

Essential Readings:

1. Beatley, Timothy (1998). *The Vision Burby, Raymond (ed.)*, *Cooperating wi Hazards with Land-Use Planning* Washington, D.C., Joseph Henry Press.

2. David Godschalk, Timothy Beatley, Phil J. Kaiser (1998). *Natural Hazard Mitigation: Recasting* Island Press.

3. *FEMA* (2000). Planning for a Sustain Hazard Mitigation and Livability. *Washin*

4. *Godschalk, David R., Timothy Beatley, P Edward J. Kaiser*

M.A. Political Science
Semester III
Paper : Disaster Management-II (Open Elective B)
(16POLO2)

Max. Marks	**: 100**
Theory Paper	: 80
Internal Assessment	: 20
Time	: 3 Hrs

Note: The question paper will be divided into five units carrying equal marks i.e. 16 marks. Students shall be asked to attempt one out of two questions from each unit. Unit five shall contain eight short answer type questions without any internal choice and it shall be covering the entire syllabus. As such, all questions in unit five shall be compulsory.

UNIT- I

5. Classification of Disasters; Conceptualizing the interface between environmental degradation and disasters

ii. Natural Disasters I: Earthquakes & Tsunamis; Volcanic Eruptions; Landslides and Avalanches

UNIT- II

iii. Natural Disasters II: Cyclones; Forest-fires; Droughts and Desertification; Floods

UNIT- III

iv. Human Induced Disasters I: Nuclear Disasters; Chemical Disasters; Soil and Water Pollution

UNIT- IV

v. Human Induced Disasters II: Global w Disasters: Epidemics

Essential Readings:

1. Ahmed, Shaik Iftikhar (2008). *Disaste Flood*, Twenty First Century Publicatio
2. Bryant Edwards (2005). Natural Hazar U.K.
3. Carter, W. Nick (1991). Disaster M Bank, Manila.

4. Central Water Commission (1987). F Delhi.

5. Central Water Commission (1989). M Delhi.

6. Government of India (1997). Vulnerab
   Kapur, A. (2010). Vulnerable Indi Disasters, Sage Publications, New Del

7. Kapur, A. (2005). Disasters in India: Publications, Jaipur.

8. Sahni, Pardeep et al. (eds.) (2002). and Reflections, Prentice Hall of India,

Further Readings:

1. Bilham, R. (2009). The seismic future Engineering, 7, pp. 839-887.

2. Bureau of Indian Standards (2002). Earthquake Resistant Design of Structu

3. Government of India (1997). Vulnerab Building Materials and Technology Housing & Urban Poverty Alleviation)

SYLLABUS FOR OPEN ELECTIVE (SANSKRIT)

Ancient Indian Culture and Philosophy

(प्राचीन भारतीय संस्कृति एवं दर्शन)

16SKTO1

2nd /3rd Semester

Maximum Marks: 100
Credits: 3:0:0 **Theory Marks: 80**
Time Allowed: 3 Hours **Internal Assessment Marks: 20**

Unit I : General Study of Ramayana and Mahabharta - 20

घटक एक : (रामायण व महाभारत का सामान्य अध्ययन)

(i) General Introduction (सामान्य परिचय)

(ii) Recenssions (संस्करण)

(iii) Society (समाज)

(iv) Family Relations (पारिवारिक सम्बन्ध)

(v) Education (शिक्षा)

(vi) Politics (राजनीति)

(vii) Economy (अर्थव्यवस्था)

(viii) Situation of Women (स्त्रियों की दशा)

Unit II : Vidurniti - 20

घटक दो : (विदुरनीति)

Unit III :Śrimadbhagavad Gītā – Chapters I to III - 20

घटक तीन श्रीमद्भगवद्गीता : अध्याय – एक से तीन

Unit IV : Yoga Philosophy - 20

घटक चार योग दर्शन

(i) General Introduction to Yoga – Citta, Vrtti, Iśvara

योग दर्शन का सामान्य परिचय – चित्त, वृत्ति, ईश्वर

(ii) Yoga for Social Health – Maitri, Karunā, Muditā, Upekshā, Yama

योग एवं सामाजिक स्वास्थय – मैत्री, करुणा, मुदिता, उपेक्षा, यम

(iii) Yoga for physical health – Niyama, Āsana, Prānāyāma
योग एवं शारीरिक स्वास्थ्य – नियम, आसन, प्राणायाम

(iv) Yoga for mental health – Pratyāhāra, dhāranā, dhyāna, samādhi.

योग एवं मानसिक स्वास्थ्य – प्रत्याहार, धारणा, ध्यान, समाधि

Guidelines : Students will be required to attempt five questions of 16 marks each.

Question no. 1 will comprise eight short answer type questions from all Units. Guidelines for other Four questions are as under.

दिशा निर्देश –

Unit I : One critical question out of two

Or

two short notes out of four. 16

Unit II : One critical question out of two

Or

two short notes out of four. 16

Unit III : One critical question out of two

Or

two short notes out of four. 16

Unit IV : One critical question out of two

Or

two short notes out of four. 16

Recommended Books (अनुशंसित ग्रन्थ) :

1. रामायण – गीता प्रेस गोरखपुर

2. महाभारत – गीता प्रेस, गोरखपुर

3. Srimad Valmikiya Ramayana with Commentaries in 6 Vols. भारतीय विद्या प्रकाशन, जवाहर नगर, दिल्ली – 7

4. Srimad Mahabharatam Ed. by T.R. Krishnacharya – Indian Book Centre, Sri Satguru Publications, 24/4, Shakti Nagar, Delhi.

5. Valmiki Ramayana me Varnit Arthik Jeevan – Kaveri Book Service

6. Valmiki Ka Rajdharma – Kaveri Book Service

7. श्रीराम के युग का तिथि निर्धारण : पुष्कर भटनागर, मा ीलाल बनारसी दास, दिल्ली

8. Politics and Ethics in Ancient India (As depicted in Mahabharta) : M. Jauhari – भारतीय विद्या प्रकाशन, जवाहर नगर, दिल्ली

9. Religion and Society in Ancient India : Om Parkash - भारतीय विद्या प्रकाशन, जवाहर नगर, दिल्ली

10. रामायणकालीन समाज एवं संस्कृति : जगदीश चन्द्र भट्ट – भारतीय विद्या प्रकाशन, जवाहर नगर, दिल्ली

11. Vidurniti by Swami Jagdishwaranand – Kaveri Book Service

12. श्रीमद्भगवद्गीता – गीता प्रेस, गोरखपुर

13. A Bhagavad Gita : Kappuswami – चौखम्बा आरियण्टालिया, दिल्ली

14. ikr×tyयोगसूत्रम् (व्यासभाष्यम्) – व्या० ब्रह्मलीनमुनि

15. ikr×tyयोगसूत्रम् – व्या० सुरेशचन्द्र श्रीवास्तव्य

16. ikr×tyयोगसूत्रम् – व्या० हरिहरानन्द आरण्य

17. व्याख्याकारों की दृष्टि में ikr×tyयोग दर्शन – विमला कर्णाटक

18. The Yoga System of Patanjali – J.H. Woods.

19. Essence of Yoga – Reflections on the Yoga Sutras of Patanjali by Bernard Bauan Chand – Indian Book Centre, Sri Satguru Publications, Delhi.

20. Meditative Yoga : Integrating Body, Breath and Mind by Are Holen and Terbojrn Hobbel : Motilal Banarsidass, Delhi.

21. The Art and Science of Raja Yoga by J. Donald Walters : Motilal Banarsidass, Delhi.

MA 2nd Semester (Open Elective Paper) to be chosen from the common pool of the University.

Sem.	Paper No	Code	Nomenclature of Paper	Contact hours/L+T+P	Marks			Credit
					Theory	I.A	Total	
II	Paper	16SOCO1	Understanding Sociology	4:0:0	80	20	100	3

Scheme of Examination:

It is decided to adopt the new scheme of Choice Based Credit System of examination whereby all the papers have four units comprising of 80 marks and the Internal Assessment component will be of 20 marks in all the Semesters. In the theory paper students will be asked to attempt four questions from the four units selecting at least one question from each unit and the 5th question shall be compulsory which will cover all units in the format of short answer type questions comprising of about 50 to 60 words. Thus, the total marks for all the five questions i.e. four from the units (16x4=64) and the 5th compulsory question of short answer numbering eight of 2 marks each i.e (8x2=16) thus making the total weight age to 80 marks. The detail of Internal Assessment of 20 marks has been prescribed by the University is given below:-

(a) One Class Test : 10 Marks
(b) One Assignment : 5 Marks
(c) Attendance : 5 Marks

Less than 65%	:	0 Marks
Up to 70%	:	2 Marks
Up to 75%	:	3 Marks
Up to 80%	:	4 Marks
Above 80%	:	5 Marks

M.A.(Sociology)
Semester-II
Open Elective Paper- -16SOCO1
Understanding Sociology

Maximum Marks: 100
Theory: 80
Internal Assessment: 20
Time : 3 Hours

Note:

3. **Nine question would be set in all.**
4. **Question No. fifth shall be based on the entire syllabus and would be compulsory. It would contain eight short answer questions of two marks each.**
5. **There would be two questions (16 marks each) from each of the four units.**
6. **The candidate would be required to attempt four questions (one compulsory and other four questions selecting one from each unit).**

Unit-I

Sociology: Meaning and Definition, Beginning and Growth of Sociology; The Scope of Sociology; Relationship with History, Anthropology, Economics.

Unit-II

Society: Types of society; Community and its characteristics; Social Groups and their types; Social Control: Functions and forms.

Unit-III

Social Stratification: Its characteristics and Bases; Social Mobility: Meaning and its types, Socialization: Stages and agencies of socialization; Social Change: Meaning and factors.

Unit-IV

Family: concept, forms and changing pattern of families; Marriage: concept and forms; Kinship: terminology, usages and incest.

References:

MacIver, R.M. and C.H.Page (1985), ***Society***, New Delhi: Macmillan.
Giddens, Anthony, (1993), ***Sociology***. Cambridge: Polity Press.
Spencer, Metta (1976), ***Foundations of Modern Sociolog***y, New Jersey: Prentice-Hall
Johnson, H.M. (1983), ***Sociology: A Systematic Introduction***, New Delhi: Allied Publishers.
Haralambos, M. (1989), ***Sociology: Themes and Perspectives***, New Delhi: Oxford University
Press. Fichter, Joseph H. (1957), ***Sociology***, Chicago: The University of Chicago Press.
Bottomore, T.B. (1972), ***Sociology***, New York: Vintage Books.
Davis, K. (1949), ***Human Society***, New York: Macmillan.
Moore, Wilbert E. (1974), ***Social Change***, Englewood Cliffs: Prentice –Hall.
Rawat, H.K. (2013), ***Contemporary Sociology***, Jaipur: Rawat Publications. Singh,
J.P. (1999), ***Sociology: Concepts and Theories***, New Delhi: Prentice-Hall.

MA 3rd Semester (Open Elective Paper)

Sem	Paper No	Code	Nomenclature of Paper	Contact hours/L +T+P	Marks			Credit
					Theory	I.A	Total	
III	Paper	16SOCO2	Indian Society	4:0:0	80	20	100	3

Scheme of Examination:

It is decided to adopt the new scheme of Choice Based Credit System of examination whereby all the papers have four units comprising of 80 marks and the Internal Assessment component will be of 20 marks in all the Semesters. In the theory paper students will be asked to attempt four questions from the four units selecting at least one question from each unit and the 5th question shall be compulsory which will cover all units in the format of short answer type questions comprising of about 50 to 60 words. Thus, the total marks for all the five questions i.e. four from the units (16x4=64) and the 5th compulsory question of short answer numbering eight of 2 marks each i.e (8x2=16) thus making the total weight age to 80 marks.
The detail of Internal Assessment of 20 marks has been prescribed by the University is given below:-

(a) One Class Test : 10 Marks
(b) One Assignment : 5 Marks
(c) Attendance : 5 Marks

Less than 65%	:	0 Marks
Up to 70%	:	2 Marks
Up to 75%	:	3 Marks
Up to 80%	:	4 Marks
Above 80%	:	5 Marks

M.A.(Sociology)
Semester-III
Open Elective Paper- 16SOCO2
Indian Society

Maximum Marks: 100
Theory: 80
Internal Assessment: 20
Time : 3 Hours

Note:

5. **Nine question would be set in all.**
6. **Question No. fifth shall be based on the entire syllabus and would be compulsory. It would contain eight short answer questions of two marks each.**
7. **There would be two questions (16 marks each) from each of the four units.**
8. **The candidate would be required to attempt four questions (one compulsory and other four questions selecting one from each unit).**

Unit – I

Indian Society: Evolution of Indian Society: Socio- Cultural Dimensions; Unity in Diversity: Cultural, Linguistic, Religious and Tribal.

Unit – II

Social Stratification: Social Differentiation and Stratification. Forms of Stratification: Caste, Class and Gender.

Unit – III

Social Change: Development and Social Change, Processes of Change: Sanskritization,Westernization and globalization.

Unit – IV

Contemporary Issues: Status of Women: Demographic, Social, Cultural, Economic and Political Dimensions; Adverse Sex Ratio: Causes and Consequences.

References:

Ahlawat, S.R and Neerja Ahlawat (2015) (ed.) Crises of Social Transformation in India, Rawat Publication, Delhi

Ahlawat, Neerja (2012) "Political Economy of Haryana's Khaps", "Economic and Political Weekly, Vol - XLVII No. 47-48, December 01.

Ahlawat, Neerja (2013), "Dispensable Daughters and Indispensable Sons: Discrete family Choice", Social Change, 43(3) PP-365-376

Ahuja, Ram (2003) Society in India, Rawat Publications, Delhi

Desai, Neera and Maithreyi Krishna Raj. (1987). Women and Society in India, New Delhi: Ajanta Publishers.

Dube, S.C. (1967). The Indian Village. New Delhi: National Book Trust.
Ghurye, G.S. (1957). Caste and Race in India, Bombay: Popular Book Depot.
Karve, Irawati (1961). Hindu Society: An Interpretation, Poona: Deccan College.
Prabhu, P.H (1979): Hindu Social Organization, Popular Prakashan.
Sharma, K.L. (2011). Indian Social Structure and Change, New Delhi: Rawat Publications. Srinivas, M.N. (1960). India's Villages. Bombay: Asia Publishing House.
Srinivas, M.N. (1970). Social Change in Modern India, Berkeley, California: University Srinivas, M.N. (1991), India: Social Structure, Delhi: Chaman offset Printers.

Quantitative Techniques
(2nd Semester) **Paper Code: 16STAO1**

Maximum Marks-80
Internal Assessment Marks—20
Time:-03 Hours
Credit: 03

Section –I

Classification of Data, variable and measurement scales. Presentation of Data. Measures of Central Tendancy and Dispersion, Skewness and Kurtosis. Measures of Association of Attributes. Correlation and Regression. Principle of Least Squares , Multiple and Partial correlation. Fitting of Polynomial and Exponential Curves.

Section –II

Random variables. Probability mass function, Probability density function and Commulative distribution function. Expectation and its properties. Moments, moment generating function and probability generating function. Discrete Probability distributions: Bernolli, Bionomial, Poisson, Negative Binomial, Geometric and Uniform. Continuous Probability distributions: Normal, Exponential, Log Normal and Uniform, Fitting of Bionomial, Poisson and normal distribution.

Section –III

Index numbers: Types, uses and their construction. Cost of living index numbers. Test of adequacy of Index numbers.

Time Series: Components and Models of time series. Measurements of trend and seasonal indices, Forcasting and Estimation.

Section –IV

Statistical Quality Control. Purposes and construction of control charts for variables and attributes using 3 sigma limits and 6 sigma limits. Single and double Sampling Inspection plans. Natural tolerance limit and modified control limits.

Vital statistics: Methods of obtaining Demographic data, Measurement of Mortality and Fertility. Complete Life and Abridged Life Tables.

Books Recommended

1. Goon, A.M., Gupta, M.K. and Dasgupta, B. : Outline of Statistics Volume-I & II
2. Goon, A.M., Gupta, M.K. and Dasgupta, B. : Fundamental of Statistics Volume-I &II
3. Rohtagi, V. K. and Md. Ehsanes Saleh, A. K. : An Introduction to Probability and Statistics
4. Mood, A.M., Graybill, F.A. and Boes, D.C. : An Introduction to Theory of Statistics
5. Croxton, F.E. and Cowden, D.J. : Applied General Statistics
6. Kendall S.M. and Stuart A. : The Advanced Theory of Statistics

Note: The examiner is to set the question paper into five units- A, B, C, D & E. In each unit A, B, C & D, he/she has to set two questions of 16 marks each from section I, II, III, & IV respectively and the candidate will attempt one question from each unit. In unit E, there will be 8 short answered questions of 2 marks each, covering the whole syllabus and the candidate has to attempt all the questions.

Sampling and Estimation Techniques

PAPER CODE: 16STAO2

Maximum Marks-80
Internal Assessment Marks—20
Time:-03 Hours
Credit: 03

Section –I

Population, sample, sampling distribution, standard error. Testing of Hypotheses: Simple and composite hypotheses, Null and alternative hypotheses, two types of errors, critical region and level of significance, one tailed test, two tailed test, Test of significance (Single and two samples problems) for normally distributed data. Goodness of fit test.

Section –II

Sample versus Complete Enumeration. Designing of Sample Surveys, Sources of Errors in Sample Surveys, Types of Non-Response Errors.
Probability and Non-probability Sampling: Simple Random Sampling with and without replacement for the estimation of Mean and Total, Determination of Sample Sizes of specified precision.

Section –III

Stratified Sampling: Proportional and Optimum Allocation, Estimation of gain due to stratification, Construction of strata, Determination of number of strata. Systematic, Cluster and Probability Proportional to Size Sampling. Comparison of stratified sampling with simple random sampling.

Section –IV

Analysis of Variance: one- way, two -way (with one and multiple but equal number of observations per cell). Completely Randomized Designs, Randomized Block Designs and Latin Square Designs.
Factorial Experiments: Definition, Estimation of factor's effect, Analysis of the factorial experiments, Confounding: complete and partial confounding.

Books Recommended

1. Mood A.M., Graybill, F.A. & Boes, D.C. : Introduction to the Theory of Statistics
2. Goon, A.M., Gupta, M.K. and Dasgupta, B. : Fundamental of Statistics, Vol-II
3. Singh D. & Chaudhary F.S. : Theory & Analysis of Sample Survey Designs
4. Mukhopadhyay, Primal : Theory and Methods of Survey sampling
5. Dass, M.N. and Giri, N.C : Design and Analysis of Experiments

Note: The examiner is to set the question paper into five units- A, B, C, D & E. In each unit A, B, C & D, he/she has to set two questions of 16 marks each from section I, II, III, & IV respectively and the candidate will attempt one question from each unit. In unit E, there will be 8 short answered questions of 2 marks each, covering the whole syllabus and the candidate has to attempt all the questions.

Optimization Techniques (3rd Semester)

PAPER CODE: 16STAO3

Maximum Marks: 80
Internal Assessment Marks: 20
Time: 3 Hours
Credit: 03

Section –I

Linear Programming Problems: Formulation and their Solution by Simplex and Artificial Variable Techniques. Resolution of Degeneracy in LPP. Duality in LPP: Solution of Primal-Dual Problems by Dual Simplex Method and Economic Interpretation of Duality. Solutions of Integer Programming Problems (IPP).

Section –II

Transportation Problems: Mathematical Formulation and their Optimal Solution. Assignment Problems: Mathematical Formulation and their Solution by Hungarian Assignment Method.
Theory of Games: Characteristic of Games, Minimax (Maximin) Criterion and Optimal Strategy. Solution of Games with (or without) Saddle Point. Solution of mxn Games by Linear Programming Method. Principle of Dominance.

Section-III

Markov Chains: Classification of States and Chains. Higher Transition Probabilities. Elementary Idea of Birth and Death Processes. Queuing Theory: Description of Queuing Problems, Notations, Measures of Effectiveness and Characteristics. Queuing Systems: M/M/1, M/M/C, M/M/1/R, M/G/1 and G/M/1 Models with Waiting Time Distribution and their Steady State Solutions.

Section –IV

Inventory Problems**:** Classification and Cost involved in Inventory Problems. Solution of Deterministic and Probabilistic Inventory Models. Job Sequencing Problems: Processing of N Jobs through Two, Three and M Machines. PERT and CPM Techniques. Labeling Time Estimate and Determination of Critical Path on Network Analysis.

Books Suggested:

1. Gass, S.I. : Linear Programming (Methods and Applications)
2. Kambo, N.S : Mathematical Programming Techniques
3. Hadely,G. : Linear Programming
4 Medhi, J. : Stochastic Processes (New Age International)
5. Donal, Gross & Carl, M. Hariss : Fundamentals of Queuing Theory (Wiley)
6. Kashyap, B.R.K & Chaudhary, M.L. : An Introduction to Queuing Theory (A.A.Publications)
7. Churchman : Introduction to Operations Research (J. Wiley)
8. Sharma, S.D. : Operation Research (Kedar Nath Ram Nath, India)

Note: The examiner is to set the question paper into five units- A, B, C, D & E. In each unit A, B, C& D, he/she has to set two questions of 16 marks each from section I, II, III, & IV respectively and the candidate will attempt one question from each unit. In unit E, there will be 8 short answered questions of 2 marks each, covering the whole syllabus and the candidate has to attempt all the questions.

M.D.UNIVERSITY, ROHTAK
List of Open Electives and Foundation Courses offered by UIET under various M.Tech courses II sem under CBCS Scheme effective from 2016-17

OPEN ELECTIVES:

Course No	Subject Name	Offered by	No of credits
16CSEO1	Computer Science Principles	**UIET(Comp Ss & Engg)**	**3**
16CSEO2	Software Engineering Practices	**UIET(Comp Ss & Engg)**	**3**
16MBTO1	Business skills for Biotechnologists	**UIET(Biotech)**	**3**
16MMEO1	OPERATIONS RESEARCH	**UIET(Mech Engg)**	**3**
16ECEO1	Multimedia Communication	**UIET(Electronics & Comm)**	**3**

Sl. No	Course No.	Subject	Credit Pattern				Examination Schedule (Marks)				Duration of Exam (Hours)	No of Hours/week
			L	T	P	Total Credits	Marks of Class works	Theory	Practical	Total		
1	16CSEO1	Computer Science Principles	3	0	-	3	50	100	-	150	3	3
2	16CSEO2	Software Engineering Practices	3	0	-	3	50	100	-	150	3	3
3	16MBTO1	Business skills for Biotechnologists	3	0	-	3	50	100	-	150	3	3
4	16MMEO1	OPERATIONS RESEARCH	3	0	-	3	50	100	-	150	3	3
5	16ECEO1	Multimedia Communication	3	0	-	3	50	100	-	150	3	3
6	16ECEF1	Electronics Engineering	2	0	-	2	50	100	-	150	3	2

16CSEO1 **Computer Science Principles**
(Open Elective)

L T **Theory : 100 Marks**
3 0 **Sessional : 50 Marks**
Total : 150 Marks
Credits : 3 Time: 3 Hrs.

Instructions for setting of paper: Nine questions are to be set in total. First question will be short answer question covering whole syllabus and will be compulsory to attempt. Next eight questions will comprise of two questions each from the four sections. Student will be required to attempt four more questions selecting one from each section. Each question will be of 20 marks

UNIT I

Fundamental of computer science and computational thinking: logical reasoning, problem solving, data representation, processing of data, abstraction, managing complexity, operation of computers and networks, effective Web searching, ethical, legal and social aspects of information technology.

UNIT II

HTML and XTML basics- LIST – unordered list – nested and ordered list – Basic HTML Tables – Intermediate HTML table and Formatting – basic HTML Forms and Formatting – More Complex HTML Forms – Frameset Element – Nested Frameset. Style Sheets and Graphics: Introduction to Style sheets – Formatting Text by Using Style Sheets – Formatting Paragraphs by Using Style Sheets, Java Script Basics.

UNIT III

Data Mining: Introduction: Motivation, Importance, Knowledge Discovery Process, KDD and Data Mining, Data Mining vs. Query Tools, Kind of Data mining, kind of data, Functionalities, interesting patterns, Classification of data mining systems, Major issues, from Data warehousing to data Mining.

UNIT IV

Computer Networks: Network fundamentals: Local Area Networks (LAN), Metropolitan Area Networks (MAN), Wide Area Networks (WAN), Wireless Networks, Inter Networks. Reference Models: The OSI model, TCP/IP model.
Operating Systems: Main functions of operating systems. Multi Prograrnming, multiprocessing, and multitasking. Deadlock and CPU scheduling algorithms

TEXT BOOKS

1. Blown To Bits: Your Life, Liberty and Happiness After The Digital Explosion
by Hal Abelson, Ken Leeden and Harry Lewis, 2010
2. Thomas A. Powell, McGraw-Hill “HTML & CSS: The Complete Reference”, Fifth Edition (Complete Reference Series) Osborne Media; 5 edition, 2010.
3.Krzysztof J. Cios, Witold Pedrycz, Roman W. Swiniarski, “Data mining: a knowledge discovery approach”, Springer, 2007

16CSEO2 **Software Engineering Practices**
(Open Elective)

L T **Theory : 100 Marks**
3 0 **Sessional : 50 Marks**
Total : 150 Marks
Credits : 3 Time: 3 Hrs.

Instructions for setting of paper: Nine questions are to be set in total. First question will be short answer question covering whole syllabus and will be compulsory to attempt. Next eight questions will comprise of two questions each from the four sections. Student will be required to attempt four more questions selecting one from each section. Each question will be of 20 marks

UNIT I
Software Engineering-Software Process- Generic process model-Prescriptive process model-specialized, unified process-Agile development-Agile Process- Extreme Programming- Other agile Process models-Software engineering Knowledge-core Principles-Principles that guide each framework Activity,

UNIT-II
Requirements Engineering-Establishing the Groundwork-Eliciting Requirements-Developing use cases- Building the requirements model- Negotiating, validating Requirements- Requirements Analysis- Requirements Modeling Strategies.

UNIT III
Design Process- Design concepts: Abstraction, Architecture, patterns, Separation of Concerns, Modularity, Information Hiding, Functional Independence, Refinement, Aspects, Refactoring, Object Oriented Design Concepts, Design Classes- Design Model: Data, Architectural, Interface, Component, Deployment Level Design Elements, Software Quality- Software Quality Dilemma- Achieving Software Quality .

UNIT IV
Testing: Strategic Approach to software Testing- Strategic Issues- Testing: Strategies for Conventional Software, Object oriented software, Web Apps-Validating Testing- System Testing- Art of Debugging, Software Maintenance-Software Supportability- Reengineering-Business Process Reengineering- Software Reengineering- Reverse Engineering-Restructuring- Forward Engineering- Economics of Reengineering

TEXT BOOKS
1. Roger S. Pressman, “Software Engineering – A Practitioner’s Approach”, seventh edition, 2010.
2. Ian sommerville, “Software Engineering” Pearson Edu, 9th edition, 2010.
3. Hans Van Vliet “Software Engineering: Principles and Practices”, 2008.

16MBTO1 **Business skills for Biotechnologists**
(Open Elective)

L	T	Theory : 100 Marks
3	0	Sessional : 50 Marks
		Total : 150 Marks
		Credits : 3 Time: 3 Hrs.

Instructions for setting of paper: Nine questions are to be set in total. First question will be short answer question covering whole syllabus and will be compulsory to attempt. Next eight questions will comprise of two questions each from the four sections. Student will be required to attempt four more questions selecting one from each section. Each question will be of 20 marks

Unit - I

Introduction: Creativity & Entrepreneurial personality and Entrepreneurship in Biotechnology, Concept and theories of Entrepreneurship, Entrepreneurial traits and motivation, Nature and importance of Entrepreneurs, Government schemes for commercialization of technology (e.g. Biotech Consortium)

Unit - II

Project management: Search for a business idea, concept of project and classification, project identification, project formulation, project design and network analysis, project report, project appraisal.

Unit - III

Financial analysis: Ratio analysis, Investment process, Break even analysis, Profitability analysis, Budget and planning process.
Sources of finance: Source of development finance, Project financing, Institutional financing to Entrepreneurs, Financial institutions, Role of consultancy organizations.

Unit - IV

Marketing channels: Methods of marketing, marketing channels, Marketing institutions and assistance.
Biotech enterprises: Setting up Small, Medium & Large scale industry, Quality control in Biotech industries, Location of an enterprise, steps for starting a small industry, incentives and subsidies, exploring export possibilities.

Text/References:

1. Innovation and entrepreneurship in biotechnology: Concepts, theories & cases by D. Hyne & John Kapeleris, 2006.
2. The Business of Biotechnology : From the Bench of the Street : By Richard Dana Ono Published Butterworth- Heinemann, 1991.
3. Entrepreneurship in Biotechnology: Managing for growth from start-up By Martin Grossmann, 2003.
4. Best Practices in Biotechnology Education: By Yali Friedman, Published by Logos Press,2008.
5. Plant Development and Biotechnology: by Robert Nicholas Trigiano, Dennis John Gray; Published by CRC Press, 2004,
6. Dynamics of Entrepreneurial Development and Management, Vasant Desai, Himalaya Publishing House, 2005.
7. Projects: Planning Analysis, Selection, Implemantation & Review, Prasannan
8. Chandra, Tata Mc Graw-Hill Publishing Co.

16MMEO1 OPERATIONS RESEARCH

Sessional : 50 Theory :100 Marks Total : 150 Duration of Exam. : 3 hrs.

L T P

3 0 0 TOTAL CREDITS:3

Instructions for setting of paper: Nine questions are to be set in total. First question will be short answer question covering whole syllabus and will be compulsory to attempt. Next eight questions will comprise of two questions each from the four sections. Student will be required to attempt four more questions selecting one from each section. Each question will be of 20 marks

Unit I

Introduction : Definition, role of operations research in decisionmaking, applications in industry. Concept on O.R.model building - Types & methods. Linear Programming (LP) : Programing definition, formulation, solution - graphical simplex Gauss Jordan reduction process in simplex methods, BIG-M methods computational, problem.

Unit II

Deterministic Model : Transportation model-balanced & unbalanced; orth west rule, Vogel's Method, Least cost or matrix minimal, Stepperg stone method, MODI methods, degeneracy, assignment, travelling salesman, problem.

Advanced Topic of LP : Duality, PRIMAL-DUAL, reactions-its solution, shadow price, economic interpretation, dual simplex, post-optimality & sensitivity analysis, problems.

Unit III

Waiting Line Models : Introduction, queue parameters, M/M/1 queue, performance of queuing systems, applications in indutries, problems. Unit VI Project Line Models : Network diagram, event activity, defects in network, PERT & CPM, float in network, variance and probability of completion time, project cost-direct, indirect, total optimal project cost by crashing of network, resources leveling in project problems. Coupling Principal Coordinates, Free Vibrations in Terms of Initial Conditions, Forced Harmonic Vibrations, Vibrations Absorber, Centrifugal Vibration Absorber, Vibration Damper.

Unit IV

Multi degrees of Freedom systems and Numerical Methods: Introduction Influence Coefficients, Stiffness Matrix, Flexibility Matrix, Naural frequancies and Normal Modes, Orthpgonality of Normal Modes, Dunkerley's Equation,Method of Matrix Iteration, The Holzer Type Problem Geared and Branched Systems, Beams.

Normal Mode Vibrations of Continuous System : Vibrating String, Longitudinal Vibrations of Rod, Torsional Vibrations of Rod, Lateral Vibrations of Beam.

Text Books :- 1. Theory of Vibration with Aplications W.T. Thomson, Prentice Hall of India.

2. Mechanical Vibration : G.K. Grover and S.P. Nigam, Nem Chand and Sons.

References Books : 1. Theory and Practice of Mecahnical Vibrations J.S. Rao and K. Gupta , Wiley Eastern Ltd.

2. Mecahnical Vibrations S.S. Raop, Addision - Wesley Publishing Company.

OPEN ELECTIVE COURSE

16ECEO1 MULTIMEDIA COMMUNICATION

		Marks	Credits
Exams	:	100	3
Sessionals	:	50	
Total	:	150	3
Duration of Exam	:	3 hrs.	

Instructions for setting of paper: Nine questions are to be set in total. First question will be short answer question covering whole syllabus and will be compulsory to attempt. Next eight questions will comprise of two questions each from the four sections. Student will be required to attempt four more questions selecting one from each section. Each question will be of 20 marks

UNIT I

Multimedia & Information Representation Multimedia Introduction: multimedia networks, Telephone networks, Data networks, Broadcast television networks, Integrated services digital networks, Broadband multiservice networks, types of Multimedia Applications: Movie on Demand, Near Movie on Demand, communication modes, multipoint conferencing, network QOS, Application QOS. Multimedia Information Representation: Digitization principles, Encoder Design, Decoder Design, Unformatted Text, Formatted Text, Hypertext, Images: Graphics, Digitized documents, Digitized pictures; Audio: PCM speech, CD-quality audio, Synthesized audio; Video: Broadcast television, Digital video, PC video, video content.

UNIT II

Text and Image Compression Compression Principles & Text Compression: Compression Principles: Source encoders and Destination decoders, Lossless and lossy compression, Entropy encoding, Source encoding; Text Compression: Static Huffman coding, Dynamic Huffman Coding, Arithmetic Coding. Image Compression: Graphics Interchange Format, Tagged image file format, digitized documents, digitized pictures.

UNIT III

Audio and Video compression: Audio Compression: Differential Pulse Code Modulation, Adaptive Differential PCM, Adaptive predictive coding, Linear Predictive coding, Code excited LPC, Perceptual Coding, MPEG Audio coders, Dolby audio coders Video compression: video compression principles, Motion Pictures Expert Group (MPEG), MPEG1, MPEG2.

UNIT IV

INTERNET AND DESIGNING FOR THE WORLD WIDE WEB The internet and multimedia: The internet, Internetworking: Internet addresses, connections, The Bandwidth Bottleneck, Internet services, MIME-Types, The world wide web and HTML, Dynamic web pages and XML, multimedia on the web, Tools for the World Wide Web: web browsers, web servers, web page makers and site builders, plug-ins and delivery vehicles. Designing For The World Wide Web: Developing for the web: HTML is a Markup Language, The Desktop Workspace, The Small Device Workspace, nibbling, Text for the web: making columns of text, flowing text around images; images for the web: GIF and PNG Images, JPEG Images, Using Photoshop, Backgrounds, clickable buttons, Client side image maps, sound for the web, animation for the web.

Text Books:

1. Fred Halsall, Multimedia Communications , Pearson
2. Tay Vaughan, Multimedia, making it work Eighth edition, Tata McGraw-Hill Edition

Reference Books

1. Rao, Bojkovic & Milovanovic, Multimedia Comm. System: Technology , Std. &Network , PHI
2. JohnF. Koegel Bufod, Multimedia Systems , Addison Wesley, Edition. 2000

DEPARTMENT OF ZOOLOGY
M. Sc. ZOOLOGY
Semester- II

Course no.: 16ZOOO1
Course Title: Applied Zoology

MM:T80+IA20

Time: 3 Hr

Note: There shall be seven questions in total. One question will be compulsory (short answer type) covering the entire syllabus and remaining six questions will be set two from each unit. Students are required to attempt compulsory question and 04 more questions selecting at least selecting one from each unit.

Unit-I

Host – Definitive and intermediate, Parasitism, Symbiosis, Commensalism, Reservoir.
Transmission, prevention and control of diseases: Tuberculosis and Swine flu
Principles and applications of ECG, MRI, PET, and CAT.

Unit-II

Life history and pathogenesis of *Plasmodium* sp.
Life history, Medical importance and control of *Aedes* sp.
Life history, pathogenesis and control of *Taenia* sp.
Principles and applications of brain activity recording, and pharmacological testing.

Unit-III

Preservation of gametes in animal and artificial insemination.
Principles and management of Poultry.
Introduction and management of pisciculture
Genetic improvement in animals; Induced breeding in aquaculture.

***As per SOE Zoology**
**** Proposed maximum marks and subject to change in uniformity with other faculties of university**

List of Recommended Books

1. Dent, D. Insect Pest Management
2. Hill, D.S., Timber Press. Agricultural Entomology
3. David, B. V. & Ananthakrishnan. General and Applied Entom
4. ology . T. N., Tata McGraw-Hill Publishing.
5. Asa C. Chandler, Clark P. Read, Introduction to Parasitology, John wiley and Sons., Inc., New York.
6. Thomas W.M. Cameron, Parasites and Parasitism, Billing and Sons ltd. London,
7. Elmer R. Noble, Glenn A. Noble; Parasitology: The Biology of Animal Parasites, Lea and Febiger, Washington.
8. R.P. Hall, Protozoology, Prentice-Hall, Inc. Engtewood diffs. N.J. Charles E. Tuttle Company, Tokya
9. E.O. Wilson. The Diversity of Life (The College Edition), W.W. Northern & Co.
10. Molecular Biology of the Cell, B. Alberts, D. Bray, J. Lewis, M. Raff, K. Roberts and J.D. Watson. Garland Publishing Inc., New York.
11. Molecular Biology and Biotechnology. A comprehensive desk reference, R.A. Meyers (Ed.), VCH Publishers, Inc., New York.
12. Molecular Cloning: a Laboratory Manual, J. Sambrook, E.F. Fritsch and T. Maniatis, Cold Spring Harbor Laboratory Press, New York.
13. Gray's Clinical Neuroanatomy by Mancall **New** Medical Pharmacology at a Glance (7th Ed.)
14. Oxford Handbook of Neurology (

DEPARTMENT OF ZOOLOGY
M. Sc. ZOOLOGY

Course Title: Wild Life And Conservation

Semester- III

Course no.: 16ZOOO2
MM:T80+IA20

Time: 3 Hr

Note: There shall be seven questions in total. One question will be compulsory (short answer type) covering the entire syllabus and remaining six questions will be set two from each unit. Students are required to attempt question 1 and 4 more selecting at least one from each unit.

Unit-I

Wildlife: Definition, significance and wildlife zones of the world and India, Protected Area Systems, Present status of National PA-Systems. Theory and Practice of Biosphere Reserves of the world: Biosphere Reserves of India. Natural Heritage sites, Wildlife and livelihood; Wildlife and illegal trade & control.

Unit-II

Wildlife Damage, electric fences for wildlife damage control, Basic electric fence design, Trench design, line trapping, Mist netting, Rocket netting Chemical capture: Equipment, Drugs, Plan of operation. Poaching: Its implications, conducting anti-poaching operations.

Unit-III

Wildlife conservation techniques, role of WWF, IUCN, UNEP, Red Data Book; Categories of Endangered Wildlife Species. National Projects: Project Tiger, Project elephant, Project Rhinoceros, Project Crocodiles.

***As per SOE Zoology**

****proposed maximum marks and subject to change in uniformity with other faculties of university**

List of Recommended Books

1. Techniques for wildlife Census in India by W.A. Rogers (A field mannual); Wildlife Institute of India, Dehradun.
2. Wildlife Wealth of India by T.C. Majupuria; Tecpress Services, L.P., 487/42-SOL Wattenslip,Pratunam Bangkok, 10400, Thailand
3. Ali, S. Ripley S.D. Handbook of Birds of India, Pakistan 10-Vols. Oxford University Press, Bombay.
4. The Book of Indian Animals by S.H. Prater, BNHS-Publication, Bombay.
5. Wildlife in India by V.B. Saharia Natraj Publishers, Dehradun.
6. E.P. Gee, The Wildlife of India.