

Faculty of Management

Structure of Paper II – for PhD Entrance

Examination

The paper II will of 100 marks divided in three sections.

Section 1: Key concepts of General Management, Managerial Functions perspective: (20 objective type questions, one mark each. Total 20 Marks)

Section 2: Specialisation Subjects. Descriptive type questions consisting of one short note out of three options, 5 marks. Three questions with internal options 15 marks each. (Total 50 marks)

Section 3: Case study based on applications of Research methodologies (30 Marks)

Section number	Subject	Type of Questions	Maximum Marks
1	Key concepts of General Management, Managerial Functions perspective	20 Objective type questions	1*20=20
2	Optional Subjects	1 short note out of 3 Three questions with internal options	1*5=5 3*15=45 Total 50
3		Case Study based on applications of Research methodologies	30
Total Marks			100

Optional Subjects

Serial No	Subject Code	Subject
1	A	Marketing Management
2	B	Financial Management
3	C	Computer Management

4	D	Production Management
5	E	Human Resource Management
6	F	Foreign Trade Management
7	G	Organization Management & Economic Environment
8	H	Hotel Management
9	I	Knowledge Management
10	J	Bio-technology Management

Paper II

This paper will consist of 3 sections:

Section I

Key concepts of General Management, Managerial Functions perspective:
(20 Marks, 20 objective type questions)

- a) Economics: Concepts about National Income, Market Structures, Demand- Supply Analysis, Demographic features, Banking and its Functions
- b) Communication: Types of communication, process of Communication, Need for communication, communication Barriers
- c) Leadership: Classification – Types of Leadership, Qualities- characteristics of good leader, Identification of Leadership traits.
- d) Quantitative Techniques: Graphical- tabular representation of data, Tools for Data processing, Correlation-Regression- association analysis,
- e) Managerial Functions: Planning, Organizing, Controlling, Directing
- f) Entrepreneurial Functions: Risk, uncertainty bearing innovations strategic functions

Section II

(Descriptive type- 50 marks, short note any one out of three, 5 marks. Three questions internal options 15 marks each)

Marketing (A)

- a) Marketing Mix (4 P's of Marketing & 7 P's of Services Marketing)
- b) Marketing Myopia---Concept, Nature & Scope
- c) Market Segmentation--Targeting & Positioning, Marketing Strategy Formulation.
- d) Product Life Cycle, Introduction of New Product into the Market Place.
- e) Product/Brand Positioning,
- f) Pricing Methods & Pricing Strategies.
- g) Marketing Research, Marketing Intelligence, Marketing Decision Support Systems(MDSS)

- h) Advertising, Sales Promotion, Personal Selling, Direct Marketing, Publicity.
Advertising---Planning, Execution & Evaluation
- i) Distribution Channels, Wholesaling & Retailing
- j) Current Trends in Marketing (Advertising & Retailing on the Net, CRM, Green Marketing, Turbo Marketing, Holistic Marketing)

Financial Management (B)

- a) Nature and scope of Financial Management – Objectives of Financial Management – Relationship with other functional areas of Management
- b) Risk and Return – Portfolio Theory – CAPM
- c) Analysis and Interpretation of Financial Statements – Ratio Analysis – Funds Flow and Cash Flow Statements – Economic Value Addition
- d) Capital Budgeting – Appraisal Techniques – Discounted and Non Discounted Cash Flow Techniques - Appraisal under the conditions of Risk and Uncertainty
- e) Working Capital Management – Determinants and Financing of Working Capital – Cash Management – Receivables Management – Inventory Management.
- f) Capital Structure Planning – Concept of Cost of Capital – Leverage Analysis
- g) Elements of Derivatives
- h) Decision making tools and techniques – use of Management Accounting Techniques like Marginal Costing in decision making

Computer Management (C)

- a) Algorithms & Programming Concepts: Concepts of well proposed concepts, Definition of Algorithms Recursive & iterative algorithms, Objectives of algorithms. Quality of algorithm, space complexity & time complexity of algorithm Frequency analysis and problem complexity.
- b) Programming concepts: Introductions, Programming language syntax, Name, scope binding, Semantic analysis, Data types, Subroutine & control abstraction, Data abstraction & object oriented concepts, Concurrency
- c) Programming in C++ / Java/Ruby, dot net technology:
 - a. C++: Object oriented concepts, Objects & classes, Constructor & destructor, Functions, Inheritance, Operator overloading, Runtime polymorphism, Templates, Exceptional handling
 - b. *JAVA*: Objects & classes, Language features, Exception handling, Collection framework multithreading, Abstract window tool kit & applet , streams & file

input output, servlets, JSP(Java server pages), Remote method invocation, Java Networking, Introduction to Java bean, Enterprise Java beans, Struts

- d) Data Base Management System: Introduction to database systems, Introduces relational database management systems as a class of software systems. Design theory, query language and performance/tuning issues. relational Algebra, SQL, stored procedures, user-defined functions, cursors, embedded SQL programs, client-server interfaces, entity-relationship diagrams, normalization, B-trees, concurrency, transactions, database security, constraints, object-relational DBMSs, specialized engines such as spatial, text, XML conversion and time series.
- e) Implementation of database management systems: Explores the internals of database management systems. Introduction of cursor, triggers, view & stored functions. SQL Query optimization in centralized and parallel systems, use of B-tree indexes for efficiency, nested loop, sort/merge and hash-partition, joins, histograms for estimation, lock and unlock. Introduces recovery, log record structure, log functions, fuzzy check pointing, buffer manager structure, LRU replacement, FIX rule, WAL rule, two-phase commit with presumed abort optimization and replication.
- f) Special Topics in Database Management: Object-oriented database systems and distributed data-base systems. Transaction Concepts, Deadlock, detection & recovery, prevention algorithms, serializability, schedules concurrency ,Crash recovery. Recovery concepts, techniques, checkpoint , recovery with concurrent transaction (rollback, commits),catastrophic failure.
- g) Client – Server technologies : Client- server information system, client server architecture. database middleware components.
- h) SPM : Concepts of software management: software crisis , principles of software engineering , programming in large, Software methodologies/ processes , Software measurement, Object oriented requirement analysis & modelling, Software architecture, Software design, Implementation, Documentation, Project management, Safety & maintenance, Configuration management, PERT & CPM.
- i) Software Inspection , Quality Assurance & Testing
Software Review & Inspection process, Software Quality Assurance - Quality plan, Quality metric, V&V , software testing – purpose, levels of testing, test cases, types of testing
- j) Emerging Trends in Information Technology

5

E-banking, e-governance, e-agriculture, Embedded systems, Biometric technologies like fingerprint identification, RFID etc, GIS & GPS

- k) Case Studies: Online reservation, Shopping cart, Online classified, Online matrimony, Payroll system, Administration system, Inventory system, Examination system
- l) Web Application : HTML, Basic principles of web design, e-Commerce, On line Business application, Use of Internet

Production Management (D)

- a) Role and Scope of Production management, Evolution into operations management
- b) Production planning and control
- c) Facilities location & Layout
- d) Materials Handling
- e) Purchasing, Sourcing
- f) Work measurement, Time and Motion studies
- g) Statistical Quality Control, Control Charts, Quality Assurance, TQM, ISO
- h) Demand forecasting.

Human Resource Management (E)

- a) Human Resource Management (HRM)-Significance; Objectives; Functions; A diagnostic model; External and Internal environment; Forces and Influences; Organizing HRM function.
- b) Recruitment and Selection-Sources of recruits; Recruiting methods; Selection procedure; Selection tests; Placement and Follow-up.
- c) Performance Appraisal System-Importance and Objectives; Techniques of appraisal system; New trends in appraisal system.
- d) Development of Personnel-Objectives; Determining Needs; Methods of Training & Development programmes; Evaluation.
- e) Career Planning and Development-Concept of career; Career planning and development methods.
- f) Compensation and Benefits-Job evaluation techniques; Wage and salary administration; Fringe Benefits; Human resource records and audit.
- g) Employee Discipline-importance; causes and forms; Disciplinary action; Domestic enquiry.

- h) Grievance Management-Importance; Process and Practices; Employee Welfare and Social Security Measures.
- i) Industrial Relations-Importance: Industrial conflicts; Causes; Dispute settlement machinery.
- j) Trade Unions-Importance of Unionism; Union leadership; National Trade Union Movement.
- k) Collective Bargaining-Concept; Process; Pre-requisites; New trends in collective bargaining.
- l) Industrial Democracy and Employee Participation-Need for industrial democracy; Pre-requisites for industrial democracy; Employee. Participation-Objectives; Forms of Employee Participation.
- m) Future of Human Resource Management.

Foreign Trade Management (F)

- a) India's Foreign Trade and Policy; Export promotion policies; Trade agreements with other countries; Policy and performance of Export zones and Export-oriented units; Export incentives.
- b) International marketing logistics; International logistical structures; Export
- c) Documentation framework; Organization of shipping services; Chartering practices; Marine cargo insurance.
- d) International financial environment; Foreign exchange markets; Determination of exchange rates; Exchange risk measurement; International investment; International capital markets; International Credit Rating Agencies and Implications of their ratings.
- e) WTO and Multilateral trade agreements pertaining to trade in goods; trade in services and TRIPS; Multilateral Environmental Agreements (MEAs);
- f) International Trade Blocks-NAFTA, ASEAN, SAARC, EU, WTO and Dispute Settlement Mechanism.
- g) Technology monitoring; Emerging opportunities for global business.

Organization Management & Economic Environment (G)

- a) Management --concept and definition--Process--Theories of decision making--Leadership--Theories Traits.

- b) Definition and nature of economics--- Macro and Micro economics-- Concept of managerial economics-- pricing theories--Capital budgeting-- National income concept---Business environment.
- c) The concept and significance of OB Org design and culture --values--attitudes--- personality---change management-- managing conflicts--orgnisational development.
- d) Corporate strategy-- concept-- BCG matrix--SWOT Analysis--Industry analysis--- Types of strategies-- Implementing strategies---Balance score card---People side of implementation-- Strategies for managing in Global environment.
- e) Entrepreneurship-- concept--trait--contribution to economic development---Govt policy towards small and tiny sector--- Problem of sickness and rehabilitation--- Women Entrepreneurs---- importance measures to encourage women entrepreneurs— problems.
- f) Social responsibilities of business--- ethical issues--Corporate ocial responsibility and ethics.

Hotel Management (H)

- a) Management in Tourism, Economics of Tourism and Hospitality Industry.
- b) Management Functions and Behaviour in Tourism Managing Personnel in Tourism.
- c) Tourism Planning and Development Tourism Products : Design and Development Tourism Operations, Customer Relationship Management Principles.
- d) Practices of Hospitality Management Tourism Destination Management Business Environment and Legislation in Tourism Global Tourism Resource Management.

Knowledge Management (I)

- a) Knowledge and Knowledge Management: Definitions sources of Knowledge management.
- b) Knowledge creation: Human aspects of Knowledge creations.
- c) Need for Knowledge Management: Knowledge Management today knowledge acquisition tools Data, information, knowledge, wisdom.
- d) Categorisation of knowledge Management: conflicts of the knowledge management process Knowledge Management approaches.

- e) Various models of Knowledge Management: Knowledge Management infrastructure design and issues.
- f) Basic Components of Knowledge Management Systems.
- g) Knowledge Communities and need for Knowledge Communities.
- h) Architectures for Knowledge Management System: knowledge Assets-Role of Taxonomy in Knowledge Management.
- i) Corporate Intranet: Knowledge Ecologies,- Knowledge Management careers.
- j) Knowledge originations and their need-future of Knowledge Management.

Biotechnology (J)

- a) Basics of Biotechnology and Bioinformatics: Nucleic Acids and Protein Structure Functions Recombinant DNA technology.
- b) Basic Immunology and Hybridoma technology Animal Cell Culture, Basic techniques and applications.
- c) Plant tissue culture, floriculture and Herbal medicine.
- d) Biotechnology applications in environment protection, biofuel Bioinformatics, databank, data analysis, Sequence comparison, accessing databank Protein Structure databank and application Genomics, Proteomics, Pharmacogenomics, Chemo-informatics.
- e) Advances in BT: Stem Cell Research, Tissue Engineering, New Drug Design and Development, Combinatorial Chemistry, DNA Chip Technology, Antibody Engineering Transgenic Plants, Transgenic Animals, Third Generation Vaccines.
- f) Dynamics of the Life Science Industry: Global trends in BT, pharma and related industries Challenges in the international market.

Section III

Case study based on applications of Research methodologies in the respective optional subjects.