



UNIVERSITY GRANTS COMMISSION

NET BUREAU

SYLLABUS

Subject: GENERAL PAPER ON TEACHING & RESEARCH APTITUDE

Code No. : 00

PAPER-I

The main objective is to assess the teaching and research capabilities of the candidates. The test aims at assessing the teaching and research aptitude as well. Candidates are expected to possess and exhibit cognitive abilities, which include comprehension, analysis, evaluation, understanding the structure of arguments, deductive and inductive reasoning. The candidates are also expected to have a general awareness about teaching and learning processes in higher education system. Further, they should be aware of interaction between people, environment, natural resources and their impact on the quality of life.

The details of syllabi are as follows:

Unit-I Teaching Aptitude

- Teaching: Concept, Objectives, Levels of teaching (Memory, Understanding and Reflective), Characteristics and basic requirements.
- Learner's characteristics: Characteristics of adolescent and adult learners (Academic, Social, Emotional and Cognitive), Individual differences.
- Factors affecting teaching related to: Teacher, Learner, Support material, Instructional facilities, Learning environment and Institution.
- Methods of teaching in Institutions of higher learning: Teacher centred vs. Learner centred methods; Off-line vs. On-line methods (Swayam, Swayamprabha, MOOCs etc.).

- Teaching Support System: Traditional, Modern and ICT based.
- Evaluation Systems: Elements and Types of evaluation, Evaluation in Choice Based Credit System in Higher education, Computer based testing, Innovations in evaluation systems.

Unit-II **Research Aptitude**

- Research: Meaning, Types, and Characteristics, Positivism and Post-positivistic approach to research.
- Methods of Research: Experimental, Descriptive, Historical, Qualitative and Quantitative methods.
- Steps of Research.
- Thesis and Article writing: Format and styles of referencing.
- Application of ICT in research.
- Research ethics.

Unit-III **Comprehension**

- A passage of text be given. Questions be asked from the passage to be answered.

Unit-IV **Communication**

- Communication: Meaning, types and characteristics of communication.
- Effective communication: Verbal and Non-verbal, Inter-Cultural and group communications, Classroom communication.
- Barriers to effective communication.
- Mass-Media and Society.

Unit-V **Mathematical Reasoning and Aptitude**

- Types of reasoning.
- Number series, Letter series, Codes and Relationships.
- Mathematical Aptitude (Fraction, Time & Distance, Ratio, Proportion and Percentage, Profit and Loss, Interest and Discounting, Averages etc.).

Unit-VI Logical Reasoning

- Understanding the structure of arguments: argument forms, structure of categorical propositions, Mood and Figure, Formal and Informal fallacies, Uses of language, Connotations and denotations of terms, Classical square of opposition.
- Evaluating and distinguishing deductive and inductive reasoning.
- Analogies.
- Venn diagram: Simple and multiple use for establishing validity of arguments.
- Indian Logic: Means of knowledge.
- Pramanas: Pratyaksha (Perception), Anumana (Inference), Upamana (Comparison), Shabda (Verbal testimony), Arthapatti (Implication) and Anupalabddhi (Non-apprehension).
- Structure and kinds of Anumana (inference), Vyapti (invariable relation), Hetvabhasas (fallacies of inference).

Unit-VII Data Interpretation

- Sources, acquisition and classification of Data.
- Quantitative and Qualitative Data.
- Graphical representation (Bar-chart, Histograms, Pie-chart, Table-chart and Line-chart) and mapping of Data.
- Data Interpretation.
- Data and Governance.

Unit-VIII Information and Communication Technology (ICT)

- ICT: General abbreviations and terminology.
- Basics of Internet, Intranet, E-mail, Audio and Video-conferencing.
- Digital initiatives in higher education.
- ICT and Governance.

Unit-IX People, Development and Environment

- Development and environment: Millennium development and Sustainable development goals.
- Human and environment interaction: Anthropogenic activities and their impacts on environment.
- Environmental issues: Local, Regional and Global; Air pollution, Water pollution, Soil pollution, Noise pollution, Waste (solid, liquid, biomedical, hazardous, electronic), Climate change and its Socio-Economic and Political dimensions.
- Impacts of pollutants on human health.
- Natural and energy resources: Solar, Wind, Soil, Hydro, Geothermal, Biomass, Nuclear and Forests.
- Natural hazards and disasters: Mitigation strategies.
- Environmental Protection Act (1986), National Action Plan on Climate Change, International agreements/efforts -Montreal Protocol, Rio Summit, Convention on Biodiversity, Kyoto Protocol, Paris Agreement, International Solar Alliance.

Unit-X Higher Education System

- Institutions of higher learning and education in ancient India.
- Evolution of higher learning and research in Post Independence India.
- Oriental, Conventional and Non-conventional learning programmes in India.
- Professional, Technical and Skill Based education.
- Value education and environmental education.
- Policies, Governance, and Administration.

- NOTE:**
- (i) Five questions each carrying 2 marks are to be set from each Module.
 - (ii) Whenever graphical/pictorial question(s) are set for sighted candidates, a passage followed by equal number of questions and weightage be set for visually impaired candidates.



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NET SYLLABUS

Subject : Management

Code No. : 17

Unit – I

Management – Concept, Process, Theories and Approaches, Management Roles and Skills

Functions – Planning, Organizing, Staffing, Coordinating and Controlling.

Communication – Types, Process and Barriers.

Decision Making – Concept, Process, Techniques and Tools

Organisation Structure and Design – Types, Authority, Responsibility, Centralisation, Decentralisation and Span of Control

Managerial Economics – Concept & Importance

Demand analysis – Utility Analysis, Indifference Curve, Elasticity & Forecasting

Market Structures – Market Classification & Price Determination

National Income – Concept, Types and Measurement

Inflation – Concept, Types and Measurement

Business Ethics & CSR

Ethical Issues & Dilemma

Corporate Governance

Value Based Organisation

Unit – II

Organisational Behaviour – Significance & Theories

Individual Behaviour – Personality, Perception, Values, Attitude, Learning and Motivation

Group Behaviour – Team Building, Leadership, Group Dynamics

Interpersonal Behaviour & Transactional Analysis

Organizational Culture & Climate

Work Force Diversity & Cross Culture Organisational Behaviour

Emotions and Stress Management

Organisational Justice and Whistle Blowing

Human Resource Management – Concept, Perspectives, Influences and Recent Trends

Human Resource Planning, Recruitment and Selection, Induction, Training and Development

Job Analysis, Job Evaluation and Compensation Management

Unit – III

Strategic Role of Human Resource Management

Competency Mapping & Balanced Scoreboard

Career Planning and Development

Performance Management and Appraisal

Organization Development, Change & OD Interventions

Talent Management & Skill Development

Employee Engagement & Work Life Balance

Industrial Relations: Disputes & Grievance Management, Labour Welfare and Social Security

Trade Union & Collective Bargaining

International Human Resource Management – HR Challenge of International Business

Green HRM

Unit- IV

Accounting Principles and Standards, Preparation of Financial Statements

Financial Statement Analysis – Ratio Analysis, Funds Flow and Cash Flow Analysis, DuPont Analysis

Preparation of Cost Sheet, Marginal Costing, Cost Volume Profit Analysis

Standard Costing & Variance Analysis

Financial Management, Concept & Functions

Capital Structure – Theories, Cost of Capital, Sources and Finance

Budgeting and Budgetary Control, Types and Process, Zero base Budgeting

Leverages – Operating, Financial and Combined Leverages, EBIT–EPS Analysis, Financial Breakeven Point & Indifference Level.

Unit –V

Value & Returns – Time Preference for Money, Valuation of Bonds and Shares, Risk and Returns;

Capital Budgeting – Nature of Investment, Evaluation, Comparison of Methods; Risk and Uncertainly Analysis

Dividend – Theories and Determination

Mergers and Acquisition – Corporate Restructuring, Value Creation, Merger Negotiations, Leveraged Buyouts, Takeover

Portfolio Management – CAPM, APT

Derivatives – Options, Option Payoffs, Option Pricing, Forward Contracts & Future Contracts

Working Capital Management – Determinants, Cash, Inventory, Receivables and Payables Management, Factoring

International Financial Management, Foreign exchange market

Unit - VI

Strategic Management – Concept, Process, Decision & Types

Strategic Analysis – External Analysis, PEST, Porter's Approach to industry analysis, Internal Analysis – Resource Based Approach, Value Chain Analysis

Strategy Formulation – SWOT Analysis, Corporate Strategy – Growth, Stability, Retrenchment, Integration and Diversification, Business Portfolio Analysis - BCG, GE Business Model, Ansoff's Product Market Growth Matrix

Strategy Implementation – Challenges of Change, Developing Programs
Mckinsey 7s Framework

Marketing – Concept, Orientation, Trends and Tasks, Customer Value and Satisfaction

Market Segmentation, Positioning and Targeting

Product and Pricing Decision – Product Mix, Product Life Cycle, New Product development, Pricing – Types and Strategies

Place and promotion decision – Marketing channels and value networks, VMS, IMC, Advertising and Sales promotion

Unit –VII

Consumer and Industrial Buying Behaviour: Theories and Models of Consumer Behaviour

Brand Management – Role of Brands, Brand Equity, Equity Models, Developing a Branding Strategy; Brand Name Decisions, Brand Extensions and Loyalty

Logistics and Supply Chain Management, Drivers, Value creation, Supply Chain Design, Designing and Managing Sales Force, Personal Selling

Service Marketing – Managing Service Quality and Brands, Marketing Strategies of Service Firms

Customer Relationship Marketing – Relationship Building, Strategies, Values and Process

Retail Marketing – Recent Trends in India, Types of Retail Outlets.

Emerging Trends in Marketing – Concept of e-Marketing, Direct Marketing, Digital Marketing and Green Marketing

International Marketing – Entry Mode Decisions, Planning Marketing Mix for International Markets

Unit –VIII

Statistics for Management: Concept, Measures Of Central Tendency and Dispersion, Probability Distribution – Binominal, Poison, Normal and Exponential

Data Collection & Questionnaire Design

Sampling – Concept, Process and Techniques

Hypothesis Testing – Procedure; T, Z, F, Chi-square tests

Correlation and Regression Analysis

Operations Management – Role and Scope

Facility Location and Layout – Site Selection and Analysis, Layout – Design and Process

Enterprise Resource Planning – ERP Modules, ERP implementation

Scheduling; Loading, Sequencing and Monitoring

Quality Management and Statistical Quality Control, Quality Circles, Total Quality Management – KAIZEN, Benchmarking, Six Sigma; ISO 9000 Series Standards

Operation Research – Transportation, Queuing Decision Theory, PERT / CPM

Unit –IX

International Business – Managing Business in Globalization Era; Theories of International Trade; Balance of payment

Foreign Direct Investment – Benefits and Costs

Multilateral regulation of Trade and Investment under WTO

International Trade Procedures and Documentation; EXIM Policies

Role of International Financial Institutions – IMF and World Bank

Information Technology – Use of Computers in Management Applications; MIS, DSS

Artificial Intelligence and Big Data

Data Warehousing, Data Mining and Knowledge Management – Concepts

Managing Technological Change

Unit – X

Entrepreneurship Development – Concept, Types, Theories and Process, Developing Entrepreneurial Competencies

Intrapreneurship – Concept and Process

Women Entrepreneurship and Rural Entrepreneurship

Innovations in Business – Types of Innovations, Creating and Identifying Opportunities, Screening of Business Ideas

Business Plan and Feasibility Analysis – Concept and Process of Technical, Market and Financial Analysis

Micro and Small Scale Industries in India; Role of Government in Promoting SSI

Sickness in Small Industries – Reasons and Rehabilitation

Institutional Finance to Small Industries – Financial Institutions, Commercial Banks, Cooperative Banks, Micro Finance.