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**MIT WORLD PEACE
UNIVERSITY | PUNE**

TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

Ph.D. Entrance Test Syllabus for Faculty of Management

The PET (Ph.D. Entrance Test) for the Faculty of Management consists of two parts:

- Part I: Research Methodology & Aptitude (50 marks) and
- Part II: Management (50 marks)

Total Marks for Ph.D. Entrance Test: 100 Marks

Part I: Research Methodology & Aptitude (50 marks)

Unit-1: 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 -2 : 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-3 : 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.

Unit-4 : 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-5:Foundations of Research

Meaning, Objectives, Motivation, Utility. Concept of theory, empiricism, deductive and inductive theory. Characteristics of scientific method - Understanding the language of research

Concept, Construct, Definition, Variable. Research Process

Review of Literature, Problem Identification & Formulation – Management Question – Research Question – Investigation Question – Measurement Issues –

Hypothesis – Qualities of a good Hypothesis –Null Hypothesis & Alternative Hypothesis.

Hypothesis Testing - Logic & Importance

Unit-6 : Sampling and Data Collection:

Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, and Non-Response.

Characteristics of a good sample. Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage sampling.

Non-Probability Sample – Judgment, Convenience, Quota & Snowballing methods. Determining the size of the sample - Practical considerations in sampling and sample size

Types of Data: Secondary Data - Definition, Sources, Characteristics.

Primary Data - Definition, Advantages and disadvantages over secondary data, Observation method, Questionnaire Construction, Personal Interviews, Telephonic Interview, Mail Survey, Email/Internet survey.

Reference Books:

1. Quantitative Aptitude by R.S. Aggarwal
2. Fast Track Objective Arithmetic by Rajesh Verma
3. Magical Book on Quicker Maths by M Tyra
4. A Modern Approach to Logical Reasoning by R.S. Aggarwal
5. How to Prepare for Data Interpretation for CAT by Arun Sharma
6. A Modern Approach to Verbal and Non-Verbal Reasoning by R.S. Aggarwal
7. Research Methodology - C.R. Kothari and Gaurav Garg, 4th edition, New Age International Publication.
8. Business Research Methods - Donald Cooper & Pamela Schindler, 12th edition, McGraw Hill.
9. Business Research Methods – Alan Bryman & Emma Bell, 3rd edition, Oxford University Press India,
10. Fundamentals of Statistics – S. C. Gupta, 7th edition, Himalaya Publishing House.

Part II : Management (50 marks)

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

Organization Structure and Design – Types, Authority, Responsibility, Centralization, Decentralization 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 Organization

Unit – II

Organizational Behavior – Significance & Theories

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

Group Behavior – Team Building, Leadership, Group Dynamics Interpersonal Behavior & Transactional Analysis

Organizational Culture & Climate

Workforce Diversity & Cross Culture Organizational Behavior Emotions and Stress Management

Organizational 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, Labor 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 Uncertainty 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 McKinney 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 Behavior: Theories and Models of Consumer Behavior
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.

Reference Books:

1. Principles of Management Pravin Durai, Pearson
2. Organizational Behavior by Stephen Robbins
3. Financial Management by Prasanna Chandra
4. Human Resource Management by Garry Dessler and Biju Varrkey
5. Marketing Management by Phillip Kotler et al
6. Business Statistics, Richard Levin and Siddique Masood
7. Operations Management- Theory and Practice by B. Mahadevan
8. Information Technology for Management, Efraim Turban, Carol Pollard, Gregory Wood, O P Wali
9. Managerial Economics- Suma Damodaran