



Dr. Vishwanath Karad

**MIT WORLD PEACE
UNIVERSITY | PUNE**

TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

PhD Entrance Test Syllabus for Faculty of Management

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

- Part I : Research Methodology (50 marks) and
- Part II : Subject Specific (Related to the domain for 50 marks)

Total Marks for PhD Entrance Test: 100 Marks

Part I: Research Methodology (50 Marks)

1. 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

2. Research Design and approaches:

Concept and Importance in Research - Features of a good research design – Exploratory Research Design – concept, types and uses, Descriptive Research Designs - concept, types and uses. Experimental Design: Causal relationships, Concept of Independent & Dependent variables, concomitant variable, extraneous variable, Treatment, Control group.

Qualitative and quantitative research: Qualitative research – Quantitative research – Concept of measurement, causality, generalization, replication. Merging the two approaches.

3. Measurement & Scaling

Concept of measurement– what is measured? Problems in measurement in management research - Validity and Reliability. Levels of measurement - Nominal, Ordinal, Interval, Ratio.

Attitude Scaling Techniques: Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired Comparison & Forced Ranking.

4. Sampling and Data Collection:

Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, 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 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.

5. Data Analysis:

Data Preparation – Univariate analysis (frequency tables, bar charts, pie charts, and percentages), Bivariate analysis – Cross tabulations, Measures of Central tendencies, measures of dispersion, Correlation, Regression. Interpretation of analysis. (Basic numerical expected)

- 6. Research paper/Thesis writing:** Lay out of research paper/thesis Purpose, Contents, Problems, Interpretation of Report Writing, Techniques of Interpretation, Layout, Structure and Language of the Report, Illustrations and tables, Types of report, Technical reports and Thesis-Bibliography. Ethical Issues in Research-Meaning, Importance, Problems, Citation of Published Material, Ethical Issues Related to Publishing, Plagiarism and Self-Plagiarism, Citation and Acknowledgement-Accountability.

Books Recommended:-

1. Research Methodology - C.R. Kothari and Gaurav Garg, 4th edition, New Age International Publication.
2. Business Research Methods - Donald Cooper & Pamela Schindler, 12th edition, McGraw Hill.
3. Business Research Methods – Alan Bryman & Emma Bell, 3rd edition, Oxford University Press India,
4. Fundamentals of Statistics – S. C. Gupta, 7th edition, Himalaya Publishing House.

Part II: Domain specific subjects (50 Marks)

Commerce and Management

UNIT I Accounting and Auditing

Accounting concepts and conventions ,Corporate Accounting: Issue, forfeiture and reissue of shares, Liquidation of companies, Acquisition, Merger, Amalgamation and Reconstruction of companies ,Cost and Management Accounting: Marginal costing and Break-even analysis, Standard costing, Budgetary control, Financial Statements Analysis- Ratio analysis, Cash flow analysis , Recent Trends in Auditing: Management audit, Energy audit, Environment audit, Systems audit, Safety audit.

UNIT II Economics

Fundamentals of Economics, Basic Economic Problems, principles of economics, Demand and Supply , Demand forecasting, Law of Variable Proportions: Law of Returns to Scale, Theory of cost: Short-run and long-run cost curves, Market morphology: Perfect competition, Monopoly- Features and price determination, Sources of monopoly and price discrimination ,Monopolistic competition, Oligopoly and types of oligopoly competition.

UNIT III Business Finance and Banking

Business Finance: Scope and sources of finance, Lease financing, Cost of capital and time value of money, Capital budgeting decisions, Working capital management, International monetary system, Foreign exchange market, Exchange rate risk and hedging techniques, Trends in Finance, Indian financial system, Reserve Bank of India, Monetary Policy, Role of Financial Institutions, Micro Financing in India, Financial inclusion, Recent Trends in Banking.

UNIT IV Human Resource Management and Operations Management

Functions and Principles of Management, Planning and Decision Making, Organizing, Controlling & Coordination, Emerging Issues/Challenges in Management, Human resource management: Importance , Functions, Strategic HRM ,Recent Updates in HRM, Role of Operations Management , Inventory Management, Supply Chain Management.

UNIT V Marketing Management and Entrepreneurship

Fundamental Concepts in Marketing, Marketing Environment, PESTLE Analysis, Consumer and Organizational Buying Behaviour, Segmentation Targeting Positioning, Modern Marketing Mix, Service marketing, Trends in marketing: Social marketing, Online marketing, Green marketing, Direct marketing, Rural marketing, Entrepreneurship ,Entrepreneurial Process, Idea Generation , Business Opportunities ,Business Model ,B-Plan ,Sources of Finance ,Types of venture and Risk. Start-Up Eco System, MSMEs in India

Recommended Books: -

1. Rustogi, R.P, (2017), Fundamentals of Management Accounting, Taxmann (5 th Edition),
2. Kapil Sheeba, "Financial Management" Pearson.
3. M. Y. Khan "Indian Financial System" Tata McGraw-Hill Publishing Company Ltd
4. Koontz, & O'Donnell. (2015). Essentials of Management 10e. McGraw-Hill.
5. Samuelson P A and Nordhaus W D, Economics (19th Edition), India, McGraw Hill Education.
6. B Mahadevan, Operations Management: Theory and Practice, Pearson
7. Kotler.P & Keller. K (2016), Marketing Management, 15e, Pearson

Part II: Domain specific subjects (50 Marks)

Computer Application

UNIT I Mathematical Logic

Propositional logic, First order logic, Probability, Random, variables and expectation, Conditional probability, Independent random variables, Distributions (Uniform, Normal Exponential, Poisson, Binomial)

UNIT II Computer Fundamentals

Basic Logic Gates (AND, OR, NOT), I/O Devices, Memory Types, Types of Computers, Language Translators (Compiler Assemblers and Interpreters)

UNIT III Computer Network

Network Goals, Classification, Architecture, Physical layer, Data link layer, Network Routing, Flow and congestion control, Internet protocol, TCP, ATM, Quality of service, Network Management, Application layer, Network security

UNIT IV Operating System, Programming Languages and Data Structure

Introduction to Operating System, Linux and Windows Operating Systems. Object Orientated Programming, Loops, Functions, Recursion, Parameter passing, Scope, Binding; Abstract data types, Arrays, Stacks, Queues, Linked Lists, Trees, Binary search trees, Binary heaps

UNIT V DBMS, RDBMS and Data Mining

CODD Rules, RDBMS, Keys, Normalization, DDL, DML, DCL and TCL Statements, Normalization, Parallel Databases, Distributed Databases, Object Oriented, Databases, Data mining Introduction, Data warehouse and OLAP, Data Pre- processing, Data Mining Primitives and Language

UNIT VI Web technologies and Software Engineering

HTML, CSS, Java Script, AngularJS, JQuery, XML, Information gathering, requirement and feasibility analysis, data flow diagrams, process specifications, input/output design, process life cycle, planning and managing the project, design, coding, testing, implementation, maintenance.

Reference Books:

1. An Introduction to Mathematical Logic
2. Computer Fundamentals – V Rajaraman
3. Computer Network - Andrew S. Tanenbaum,
4. Operating System by Avi Silberschatz · Peter Baer Galvin · Greg Gagne.
5. Programming Language and Data Structure - Data Structures in C and C++ by Andrew Tanenbaum
6. Database System Concepts, Silberschatz A., Korth H.F, & Sudarshan S., Tata McGraw Hill, 2003
7. Data Mining Concepts and Techniques, Jaiwei Han, Micheline Kamber, Morgan Kauffmann publishers
8. Web Technologies: HTML, JAVASCRIPT, PHP, JAVA, JSP, ASP.NET, XML and Ajax, Black Book, Kogent Learning Solutions Inc.
9. Software Engineering A practitioner approach, Roger S. Pressman

Part II: Domain specific subjects (50 Marks)

Finance

UNIT – I Corporate Finance and Strategic Financial Management:

Concept, Objectives and components of Strategic planning process. Linkage between corporate strategy and financial strategy; implications of capital budgeting, capital structure and dividend policy on corporate strategy; Shareholders value creation. Security Valuation Principals and Models: Bonds, Equities, Preference shares, Multinational Financial Management: Its organization, Opportunities and challenges of Multinational Corporations

UNIT-II Financial Markets: Mechanism and Regulation

Stock Exchanges in India: Listing of Scrips, On-Line Trading, Depositories, Trading, Settlement, Risk Management, Investor Grievances, Basics of Pricing Mechanism, Inside trading, Circular trading, Price rigging. Regulation of Indian Capital Market: SEBI, Stock Exchange Board. Stock Indices, Role of FIIS, MFs, and Investment Bankers in the Stock market. Foreign Exchange Markets: Spot market, Forward market. Mechanism of foreign exchange management, Derivatives: forwards, futures, options, swaps. Money Market and need for it, participants in Money Market, Money Market Instruments

UNIT-III Corporate Restructuring

Need, Methods of restructuring, Mergers and Acquisitions, Divesture, Outright sale, Disinvestment, leveraged buyout. Mergers and Acquisitions: Motives, considerations in M&A decisions, Synergy Value, Due Diligence Process, Business Valuation Methods, Evaluation of Mergers and Acquisitions and regulations

UNIT IV Personal Finance & Invest Planning

Behavioural Finance: Conceptual and Research Issues, Security Analysis, Technical Analysis of Stock Market, Investment Planning, Portfolio Management theories, Basic concepts like Assesse, person, Assessment Year, Previous Year, Resident Individual, Non-Resident Individual, TDS. Tax Slabs & taxation Rates for Previous Year 2019-2020 for Individuals, Deductions available under section 80 C for Tax Planning

UNIT-V Banking Systems, Micro Finance and Financial Inclusions:

Organisation, Structure, Emerging scenario of Banking in India, Entry of Private and foreign Banks. Financial Innovation and Opportunities for Banks: Universal Banking, Banc assurance, Factoring and Securitization. Regulation of Banking Sector: Role of RBI: Prudential Norms and performance measurement, CRR, SLR, CRAR, NPA, Income recognition, Asset qualification and Provisioning norms, Basel accord. Risk Management in Banks, Asset liability Management Using traditional GAP and modern techniques, FINTECH in Banking, Micro Financing in India, Financial inclusion and role of Banks. Micro Finance – Objectives and significance of Micro Finance, Formation of MFIs, RBI Stipulations for MFIs, Microfinance Delivery Models, Concept of Self-Help group, Micro Financing in India. Financial Inclusion- Concept and need of financial inclusion, Initiatives of Reserve Bank of India and role of banks in financial inclusion, Role of Technology in Financial Inclusion

Recommended Books: -

- Kapil Sheeba, " Financial Management" Pearson.

- Jonathan Berk, Peter, "Financial Management" Pearson.
- Sharan Vyuptakesh, " Fundamentals of Financial Management" Pearson.
- James C Van horne, " Financial Management & Policy" Pearson
- M. Y. Khan " Indian Financial System" Tata McGraw-Hill Publishing Company Ltd
- Chandra Prasanna "Investment Analysis" Tata McGraw-Hill Publishing Company Ltd.
- Introduction to Financial Planning , Indian Institute of Banking & Finance

Part II: Domain specific subjects (50 Marks)

General Management

Syllabus:

UNIT I Global Business Environment:

Economic Environment of Business, The Global Economic Environment, Economic Policies, Business and Economic Policies, Economic Systems-Capitalist Economy, Socialist Economy, Mixed Economy, World Bank, IMF, UNCTAD, GATT/ WTO, Uruguay round, GATT v/s WTO, Pros and Cons of WTO, Globalization, Industry 4.0 , Rise of Economic Nationalism, Automation and Changing Nature of Work , New World Order Lead by China : Impact , Climate Activism .

UNIT II The Economic Environment in India:

Nature of economic systems and the India Economy, The Competition Law, Investment and savings, Consumer Price Index, Balance of payments and exchange rates, Public Sector in India, monetary and fiscal policy, Inflation, Unemployment, The basic types of businesses (individual, commercial, public, private and governmental, Co-operative Sector), Entrepreneurship Development, Start-Up Eco System, Government regulation.

UNIT III The Financial Management:

Accounting and Financial Reporting, An Overview of the Financial System, Components of Financial System, Money and Capital markets, Financial Institutions and their Roles, Financial Institutions in India, Role of Foreign Direct Investment, Financial Sector Reforms, SEBI, NIFTY, Mergers & Acquisitions

UNIT IV Technology Management:

Enterprise Resource Planning, Technology Forecasting and Assessment, Technology Commercialisation and Technology Transfer, Research & Development Management, Patent, Trademarks and Intellectual Property Rights, Managing Technological Innovation, E-Commerce and E Business Management

UNIT V Business, Society and Human Resources:

Business and society, business and culture, language, culture and organizational behavior, other social/cultural factors, Traditional Values and Its Impact on Business, Social Auditing,

Consumer Protection Act, Employees' Welfare; Industrial Relations & Trade Unionism; Grievance Management, Concept of Human Development and its Evolution, Dimensions of Human Development, Measuring and Reporting on Human Development, Issues in Human Development,

Indian Perspectives and Experience in Human Development. Corporate Governance-Need for social responsibility of business, Social responsibility of business towards different groups, Barriers to social responsibility, Social responsibility of business in India

Triple Bottom Line Approach, Stake Holder Approach

Reference Books:

1. Aswathappa, K. Human Resource and Personnel Management Tata McGraw Hill, New Delhi.
2. Kapoor Mansi, Global Business Environment- Shifting Paradigms in the Fourth Industrial Revolution, Sage Publications, New Delhi.
3. Morrison J, The International Business Environment, Palgrave
4. S. K. Mishra and V.K. Puri, Economic Environment of Business, New Delhi, Himalaya Publishing House, Latest Edition
5. Francis Cherunilam, Business Environment, New Delhi, Himalaya Publishing House
6. Peter Pratley, "The Essence of Business Ethics", New Delhi, Prentice Hall of India
7. Bhalla, V.K. and Shivramu International Business Environment and business, New Delhi , Anmol
8. Business and society – Lokanathan and Lakshmi Rajan, Emerald Publishers.
9. UNDP, Human Development Report-India Various issues

Part II: Domain specific subjects (50 Marks)

Healthcare Management

UNIT I Fundamentals of Health

Concept of health, determinants of health; Indicators of health; regional, state, national and international health; pyramid structure of healthcare, National health policy.

UNIT II Epidemiology

Natural history of illness, concept of health and illness, levels of prevention and modes of intervention, outcome indicators of health; rates, ratios and proportion, incidence and prevalence concepts.

UNIT III National and International health bodies

MOH&FW, ICMR, DST, MCI, NCI, WHO, USAID.

UNIT IV Public Health in India and globally

Public and private expenditure on health, public and private funded models of healthcare, % GDP spent on health and its impact on health indicators; models of health care- India, NHS, Cuba, GCC, ObamaCare; National health programs, population indicators; pandemic and epidemic management policies and handling guidelines.

UNIT V Hospital management

Concept of hospital, types of departments – clinical, nursing, non-clinical, supportive, ancillary, hospital marketing, HR, finance, billing and hospital operations; core issues in hospital operations,

medical tourism, health insurance, sub-specialities in hospitals; hospital quality management; decision making and problem solving techniques.

Recommended books:

1. B M Sakharkar. (2019). Planning and designing of Hospitals. (Jaypee publishers) 3rd ed. 2019.
2. Kunders. J. (2005), "Planning & Design of Hospitals - OUP", Tata McGraw Hill, 5th ed.
3. Strategic issues and challenges in health management/edited by K.V. Ramani, Dileep Mavalankar, and Dipti Govil. SAGE Publications India Pvt Ltd. 2008. 1st ed.
4. Focused operations management for health services organizations / Boaz Ronen, Joseph S. Pliskin, with Shimeon Pass. Published by Jossey-Bass, A Wiley Imprint, 1st ed. 2006.
5. Syed Amin Tabish, Hospital and Health services administration ~ principles and practice, oxford university press, New Delhi, 2001.

Part II: Domain specific subjects (50 Marks)

Human Resource Management

UNIT I Concept of Human Resources Management

Human Resource Management Concepts and Perspectives in HRM, Significance, objectives, functions, HRM in changing environment, external and internal environment, forces and influences, HRM function.

UNIT II Human Resource Planning

Objectives, Process and Techniques. Job analysis-Job Description- Job Evaluation. Recruitment, Selection, sources of recruitment; Recurring methods, selection procedure; selection tests and Exit Policy.

UNIT II Training and Development & Career Enhancement

Types of Training, Training Need Analysis and methods of Training & Evaluation Techniques. Concept of Career Development, Career Planning and Succession Planning, Career development methods.

UNIT III Compensation and Performance Management

Compensation Management, Wage Determination, Incentives and Salary administration; Fringe Benefits, human resource records and audit. Performance Management System, Performance Appraisal, Evaluation, Types and Methods.

UNIT IV Managing Trade Relations

Industrial Relations and Trade Unions. Dispute Resolution and Grievance Management. Labour Welfare.

UNIT V Current Trends in Human Resources of Management

Human Resource Information System and HR Analytics- HR Metrics, Knowledge Management in HR and HR Outsourcing. Emerging Trends in HR- Managing diversity at workplace, Green HRM

Practices, Impact of Technology on HR functional areas, OD Intervention techniques, Retention Strategy.

Recommended Books

1. Aswathappa, K. Human Resource and Personnel Management Tata McGraw Hill, New Delhi.
2. Dessler, G. (2020). Human resource management. Pearson Education.
3. Armstrong, M., & Taylor, S. (2020). Armstrong's handbook of human resource management practice. KoganPage.

Part II: Domain specific subjects (50 Marks)

Marketing Management

UNIT I Fundamental Concepts in Marketing

Basic Concepts in Marketing, Marketing Environment Customer, Core concepts, Concept -Societal Marketing, Holistic Marketing and Marketing Myopia, Marketing Segmentation, Targeting & Positioning (S- Bases , T- strategies, P -strategies), Concept of Consumer Buying Behavior, Steps in Consumer Buying Decision Process and Buying Roles, Factors, Marketing Mix: definition, concept 4Ps.

UNIT II Marketing Mix

Product- Concept, Product Life Cycles –New product development, Product Mix Concept & Strategies, Pricing- Concept, Factors influencing pricing decisions, Pricing Strategies. Steps in pricing. Promotion-Promotion Mix Elements – Advertising, Sales Promotion, Personal Selling, Public Relations .Direct and Database Marketing. Steps in promotion. Place: - Meaning, Channel Functions and Marketing Channel Design. Steps in place

UNIT III Service Marketing, B2B, Retail & Market Research

Services: Extended marketing mix (7P's), Service Quality Models: Gaps Model, SERVQUAL Model, Business-to-Business (B2B) Marketing- Concept, product classification, Pricing, Channels, Retail Management - Concept, Formats, Role, Merchandise Management & new trends in retailing, Marketing Research – Concept, Process, Types of marketing research, Data collection, Data analysis.

UNIT IV IMC, Brand Management, Digital Marketing & International Marketing

IMC- Integrated Marketing communication- elements, IMC Plan & strategy, Brand Management – Brand elements, brand equity models, Branding process, branding strategies, and celebrity endorsement, Digital marketing–Tools- Mobile-email- Blog-Web- online marketing, SEO, social media marketing, International Marketing – Product, pricing, promotion and international channel distribution system.

UNIT V Rural Marketing, Financial Services Marketing, Tourism, Marketing analytics

Rural marketing – Rural consumers, channels for rural markets, challenges & trends in rural marketing, Financial services marketing - marketing of Retail banking products, mutual funds, insurance, Tourism – Definition, STP process, Tourism Product and consumers , Price, Distribution and Promotion, Marketing Analytics- Definition, scope, Brand Equity Research, Advertising Research, Consumer Analytics. Price Analytics.

Recommended Book:

1. Kotler.P & Keller. K (2016), Marketing Management, 15e, Pearson

Part II: Domain specific subjects (50 Marks)

Organizational Management

UNIT I Management and Evolution of Management thoughts

Introduction and Evolution of Management, Functions and Principles of Management, Evolution of Management thoughts, Schools of Management - Contribution by F.W .Taylor, Henri Fayol, Max Webber, Elton Mayo, Peter Drucker, Michael Porter and C.K. Prahlad, McKinsey's 7-S approach; Essential managerial competencies and managerial skills; How is the Manager's job changing? Importance of innovation to the Manager's job

UNIT II Functions of Management

Planning and Decision Making – Concept, Nature and Process of Planning, Objectives, Concept of planning premises, Forecasting, Decision Making – Concept, Process and its nature. Organizing - Concept, Formal and Informal Organization, Line and staff relationship, Centralization Vs. Decentralization, Basic issues in organizing, work specialization, chain of command, span of management. Staffing - Types, Authority, Responsibility, Centralisation, Decentralisation and Span of Control.

UNIT III Staffing, Controlling, Co-ordination, and Communication

Staffing, steps in staffing, challenges and issues in staffing; Directing and Controlling: Directing – Concept, Nature, Importance, Role of Supervisor; Controlling - Concept of Managerial Control, Importance, Process, Standards and Bench Marking, Types and techniques of control; Co-ordination, Principles of Co-ordination-Inter-dependence. Communication in Organization, Types, Process and Barriers.

UNIT IV Organizational Culture & Leadership, and People Management

Individual Behaviour – Foundations – Perception, Attitudes & values. Learning – concept, different theories of learning-conditioning, social, cognitive, memory, experiential learning, adult learning. Personality – concept, different theories, defense mechanisms, concept of development, different

theories of development, self-concept. Motivation – Concept, Elements, Content and process theories. Group Behaviour - Foundations – Group Dynamics, Group Process, Group Tasks, Types, Group Development – Conflict Management; Nature, Importance, Leadership, Leadership: Theories, outlines, approaches-Power and Authority; Team Building; Change management: Concept of change, change as a natural process; Importance & causes of change – social, economic, technological, organizational. Learning – unlearning, Concept of learning organizations.

UNIT V Emerging Issues/Challenges in Management

Globalization, Managing Innovations, GIG Economy, Virtual Organizations, Virtual Teams, Work Force Diversity & Cross Culture; Managing diversity at workplace, Sustainability issues in Management; Business Ethics; Corporate Governance

Recommended Book

1. Koontz, & O'Donnell. (2015). Essentials of Management 10e. McGraw-Hill.
2. Koontz, H., Heinz Wehrich, & Mark V. Cannice. (March 25, 2020). Essentials of Management. McGraw Hill.
3. Robbins, S. (2019). Management 14e . Pearson Publication.
4. Robbins, S., & Decenzo, D. (2016). Fundamentals of Management 9e. Pearson Education Asia.