

**Syllabus for the Trade Test and Written Test for the Post of Technical Officer
Advertisement No. 02/2023**

BUSINESS COMMUNICATION

Concepts and Cases of Communication: Definition, Importance, Process, Barriers, Essentials of effective communication, Forms of communication.

Reading Skills and Writing Techniques: Letter Writing: Body language of letter, Different types of business letters, Job application, Resume writing, Report writing, organizing material, Structuring and writing bibliography, Referencing Styles.

Effective Listening and Presentation Skills: Soft skills, Use of audio-visual aids in presentation, corporate meetings and the art of negotiation: Persuasive communication, Time management

The Process of Interpersonal Communication: Verbal and non-verbal communication, Oral communication, Tone of voice, Facial expressions, Body language and gesture, Kinesics, Oculistics, Proxemics, Haptics.

Technology Enabled Communication: Using technology in communication talks, Computer tools for planning, Computer tools for gathering and collecting information, Tools for analyzing and organizing. Tools for writing. Tools for presenting messages. Survey tools.

ORGANIZATION BEHAVIOUR

Focus and Purpose - OB Definition & Meaning, Need, OB Model, Roles of Manager in OB, Challenges and Opportunities for -Contributing disciplines and area.

Individual Behaviour - Personality – Learning, Attitudes, Values, Perceptions, Motivation.

Group Behaviour - Group Dynamics, Group Cohesiveness & Group Decision-Making.

Decision-making models, Team Building.

Leadership and Power Trait, Qualities of a good leader, Roles and responsibilities of a leader, Styles of leadership, Theories of leadership, Managerial Grid, Transactional Vs Transformational Leadership, paradigm shift.

Dynamics of Organizational Behaviour- Communication, Power and Authority, Organization Theory, culture and climate, Job satisfaction, Stress and Balancing work and

Management of Change & conflict management- Organizational change, conflict Management, Negotiations, OD interventions, Decentralisation.

International OB - Global Perspectives and Domestic & International Corporations.

IT TOOLS FOR MANAGERS

Understanding the Role of IT in Management, Essential IT Tools for Managers, Ethical and Security Considerations, Document Creation and Presentation Tools-Microsoft Office Suite (Word, PowerPoint), Creating Professional Documents and Presentations.

Data Analysis with Spreadsheet Software- Microsoft Excel for Data Analysis, Data Visualization and Charts, Advanced Functions and Pivot Tables, Conditional Formatting, Google Workspace (Docs, Slides, Sheets, google forms, google drive, file sharing, Google scholar).

Communication and Collaboration Tools- Email and Calendar Management, Video Conferencing and Webinars, Cloud Storage, social media platform, linkedin, indeed, skype, search engine optimization, introduction to job portals. Intelligence Tools, IT Tools for Strategic Planning, Introduction to AI and ChatGpt, Emerging Trends and Challenges in IT sector related to managers.

FINANCIAL ACCOUNTING AND ANALYSIS

Accounting Concepts: Business Entity, Money Measurement, Going Concern, Accounting Period, Cost Concept, Duality Aspect Concept, Realization Concept, Accrual and Matching Concept. Accounting Equation, International Accounting Matching of Indian and International Accounting Standards: AS, IAS, Ind-AS Double entry system of accounting, Rules of Debit and Credit, journalizing of transactions; Preparation of final accounts-Ledger, Trading and Profit and Loss Account, Balance Sheet, Accounting policies and standards related with depreciation, inventory and intangible assets. Ratio Analysis, comparative Balance Sheet and Trend Analysis, Concept of Gross and Net Working Capital, Preparation of Schedule of Changes in Working Capital, Funds Flow Statement.

FUNDAMENTALS OF MARKETING MANAGEMENT

Introduction to Marketing Environment, Marketing Research, Types of marketing, Marketing Process, Consumer Behaviour, Marketing plan, Competition, Segmentation, Targeting, Positioning, Marketing Mix, Customer Satisfaction, Green marketing, international marketing, Integrated Marketing Communication, Marketing Information System, Demand Forecasting, Digital Markets, Digital Goods and Services.

OPERATIONS RESEARCH

Scope and Applications, Decision-making. Linear programming, LP model, Simplex. Transportation, assignment, and transshipment models. Game Theory, Sequencing Problem. Queuing systems, Network models.

RESEARCH METHODOLOGY

Types of research, Identification, selection and formulation of the research problem. Review of literature, Research Design: Research Approach Development, Conceptual/theoretical research models, Hypothesis development, determining the types of data required, primary data and secondary data. Sample Design: population, sample size, sampling frame, sampling procedure, questionnaire development, Measurement scale, testing of questionnaire, Validity and reliability of research instrument. Data Collection and Processing of data, Tools and Techniques of Data Analysis, Research Project and Reference Writing.

BASICS OF STATISTICS

Introduction to Business Statistics. Discrete Statistics- Mean, median, mode, skewness and kurtosis, Inferential Statistics. Concepts of probability. Basics of sampling and sampling distribution. Hypothesis development and hypothesis testing. Statistical decision theory, parametric and non-parametric tests.

PRINCIPLES OF MANAGEMENT

Concept of management its characteristics, Management as Art or Science, Management Vs Administration, levels of management and its evolution, Theories of Management. Planning-

principles of planning, categories and levels of planning, essential steps in planning, Decision making- characteristics of decision making, process, types and tools of decision making. Organising- process, principles of organising, span of management, coordination-requisites for coordination, types of coordination and techniques of coordination. Staffing-need for proper staffing, manpower planning, recruitment, selection, placement, Directing-Authority-sources of authority, use of authority, responsibility, Direction and Supervision, Control-steps in controlling, essentials of effective control system, controlling and management functions.

OPERATIONS MANAGEMENT

Introduction Production and Operations Management- Concept, Classification, Production Management Objectives, Operating System, Operations Management, Managing Global Operations. Scope of Production and Operations Management.

Plant Location and Layout- Selecting a Suitable Location, Location Theories, Location Models, Plant Layout, Classification of Layout, Design of Product Layout, Design of Process Layout.

Material Handling- Principles of Material Handling, Material Handling Equipment, Evaluation of Material Handling System, guiding principles.

Materials Management- Material Planning, Purchasing, Stores Management, Inventory Control or Management, Standardization, Value Analysis, Just-In-Time (JIT) Manufacturing.

Production Planning and Control- Phases, Functions of PPC, Scheduling Systems, MPS, MRP. Capacity Planning, Routing, Scheduling Methodology.

Quality Control- Factors Affecting Quality, Inspection, Quality Control, Quality Circles, TQM, ISO and its application.

Work Study (Time and Motion Study)- Factors Influencing Productivity, TPM, PPM, Motion Study, Work Measurement, Time Study.

Maintenance Management- Objectives, Types, Breakdown (Reactive) Maintenance Preventive Maintenance, Predictive Maintenance, Maintenance Schedule Techniques, Six Sigma Maintenance, Enterprise Asset Management (EAM), Lean Maintenance, Computer Aided Maintenance, Total Productive Maintenance (TPM).

Automation- Types, Reasons for Automation, Advantages of Automation, Disadvantages of Automation, Automation Strategies, Automated Flow Lines, Computer Integrated Manufacturing.

TECHNOLOGY & INNOVATION MANAGEMENT

Concept & Classification of Technology and its management, Critical Parameters in managing Technology. Technology life cycle, Creativity and Innovation, Innovation & Technology, Process of Technological & Non-Technological Innovation, types of innovation. Condition for idea generation and innovation fertilization. Research & development (R&D), Management Innovation and firm capability, Technology Transfer & Legal frame/IPR/ Patents/copy rights/cyber law etc. Competitiveness of Firm/ industry, a Nation Technology.

PROJECT MANAGEMENT

Concept and cases of project management, Project Life Cycle. Project Selection and Criteria of Choice, Selection Models, Analysis under Uncertainty, Project Portfolio Process, Project Proposals, Project and Organization, Pure Project Organization, the Matrix and Mixed Organizational Systems. Initial Project Coordination and the Project Plan, Systems Integration, The Action Plan, The Work breakdown Structure and Linear Responsibility Chart. Network Techniques: PERT (ADM) and CPM (PDM), Risk Analysis the Varieties of Project Termination, final Report writing, PMBOK.

BUSINESS ETHICS & CORPORATE GOVERNANCE

Ethics, Morals and Values in Business, Ethical issues related to Stakeholders, Ethical Issues in managing public limited firms. Ensuring sustainable development. Global and National Perspectives – Global Corporate Governance models. Claims of Various Stakeholders - Cadbury Report, Changes over the last few decades, OECD Committee Recommendations. Internal Corporate Governance Mechanism: Board of Directors, Functional Committees of Board; Code of Conduct, whistle blowers. External Corporate Governance Mechanism: Regulators, Institutional Investors, Corporate raiders. Corporate Governance in India. CII, Kumaramangalam, Narayanamoorthy, Naresh Chandra, J J Irani Committee reports – Legal and Regulatory Changes – introduction and modification of Clause 49, Corporate governance in practice in India and cases.