BHEL Examination Pattern for Supervisor Trainees –
General Section (Common Sections)

i) Questions on Test of Reasoning - 20 Questions
04 Venn Diagrams
04 Similar Pairs/ Analogies
04 Data Interpretation
02 Passage – True/False statements/ analogies
02 Logical Reasoning
02 Basic Maths/ Aptitude
02 Integers/ Percentages/ Prime Numbers etc

ii) Questions on General Knowledge - 10 Questions
Self-Explanatory – as per current trends, history, geography, political, sports etc

iii) Questions on General English - 20 Questions
04 Questions on closest meaning words/ Synonyms/ Antonyms
04 Questions on Reading Comprehension/Small Passages
04 Questions on sentence re-arrangement
04 Questions on sentence completion/ preposition use
04 Questions on misspelling/ wrong usage of word

Diploma in Mechanical Engineering–Syllabus

Topic 1: MECHANICAL ENGINEERING

Introduction to Thermodynamics, Heat transfer & Thermal Power Plant, Steam Turbines, Materials and Manufacturing Processes, Machine Tools and Machining Processes, Process Planning and Process Engineering, Production Forecasting, Break-Even Analysis, Assembly Line Balancing, Material Management

Topic 2: MATERIAL SCIENCE & ENGINEERING

Crystal structures and Bonds, Phase diagrams, Ferrous metals and its Alloys, Non-ferrous metals and its Alloys, Failure analysis & Testing of Materials, Corrosion & Surface Engineering

Topic 3: FLUID MECHANICS & HYDRAULIC MACHINERY

Properties of fluid, Fluid Flow, Impact of jets, Hydraulic Turbines, Centrifugal Pumps.

Topic 4: MANUFACTURING ENGINEERING

Cutting Fluids & Lubricants, Broaching Machines, Welding, Gear Making, Grinding and finishing processes.

Topic 5: THERMAL ENGINEERING

Sources of Energy, Internal Combustion Engines, : I.C. Engine Systems, Performance of I.C. Engines, Air Compressors, Gas Turbines, Properties of Steam, Steam Generators, Steam Nozzles, Steam Turbines

Topic 6: MEASUREMENTS & METROLOGY

Introduction to measurements, Transducers and Strain gauges, Applied mechanical measurement, Limits, Fits & Tolerances, Gear Measurement and Testing, Machine tool testing

Topic 7: STRENGTH OF MATERIALS

Simple Stresses and Strains, Shear Force & Bending Moment Diagrams, Theory of Simple Bending and Deflection of Beams, Torsion in Shafts and Springs, Thin Cylindrical Shells

Topic 8: ADVANCED MANUFACTURING PROCESSES

Jigs & Fixtures, Jig Boring, Modern Machining Processes, CNC Milling Machines, Special Purpose Machines

Topic 9: THEORY OF MACHINES & MECHANISMS

Cutting Fluids & Lubricants, Broaching Machines, Welding, Gear Making, Grinding and finishing processes.

Topic 10: Design of Machine Elements

Introduction to Design, Design of simple machine parts, Design of Shafts, Keys, Couplings and Spur Gears, Design of Power Screws, Design of springs, Design of Fasteners

Topic 11: TOOL ENGINEERING

Metal Cutting, Machinability, Types of dies and construction, Die Design Fundamentals, Forming Dies, Pressure Die casting dies; metal extrusion dies; injection molding dies; forging dies; plastic extrusion dies

Topic 12: COMPUTER INTEGRATED MANUFACTURING/ CAD/ CAM

Computer Integrated Manufacturing (CIM), Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), Flexible manufacturing system (FMS), Computer aided production scheduling; computer aided inspection planning; computer aided inventory planning, Fundamentals of CAD/CAM, Surface Modeling, NC Control Production Systems.

Topic 13: INDUSTRIAL ROBOTICS & AUTOMATION/ MECHATRONICS

Fundamentals of Robotics, Robotic Drive System and Controller, Sensors, Robot kinematics and Robot Programming, Automation. Introduction to Mechatronics.

Topic 13: HEAT TRANSFER/ REFRIGERATION AND AIR-CONDITIONING

Conduction, Fins, Convection, Radiation, Heat exchangers, Introduction to Refrigeration, Refrigeration systems, Refrigeration Equipments, Refrigerants and lubricants, Refrigerant flow controls, Air conditioning

Topic 14: POWER PLANT ENGINEERING

Introduction to Power plant, Economics of power plant, Hydro power plant, Diesel and Gas turbine plant, Environmental impact of Power plant, Nuclear power plant, Material Handling System, Hoisting Machinery & Equipments, Conveying Machinery

Diploma in Electrical Engineering–Syllabus

Topic 1: BASIC ELECTRICAL ENGINEERING

Basic terminology and their concept, D.C. circuits, Batteries, Capacitors, Electromagnetism, Electromagnetic induction, A.C. circuits, Transients and Harmonic & Polyphase circuits.

Topic 2: ENGINEERING MATERIALS

Classification of materials into conducting, semiconducting and insulating materials, Conducting Materials, Insulating materials, Magnetic materials, Semiconductor materials & Special purpose materials.

Topic 3: ELECTRONICS

Semiconductor diode, Bipolar Junction transistor, Single stage transistor amplifier, FET MOSFET & CMOS, Multi Stage & Power amplifier, Feedback amplifiers, Regulated power supply & Oscillator, Digital electronics, Operational amplifiers, Microprocessors, Communication engg. & Integrated Circuits

Topic 4: ELECTRICAL INSTRUMENTS AND MEASUREMENTS

Instruments used to read the general electrical quantities like current, voltage power, energy, frequency, and resistance etc Measurements & errors, Ammeters and voltmeters, Wattmeter and maximum demand indicator, Energy meter, Miscellaneous measuring instruments, Electronic instruments, Measurement of inductance and capacitance, Elements of process instrumentation, Control system components, Instrument transformer, Transducer.

Topic 5: ELECTRICAL MACHINES

Classification of main types of electrical machines and their generalised treatments, motor and generator, D.C. machines, Transformer & A. C. Generator, Transformer, D. C. Machines, Synchronous Machines, Three Phase Induction Motor, F. H. P. Motor, Induction motor, Synchronous motor, Electric Drive, Converting Apparatus, Control components, A.C. control circuits, Control of synchronous motors, Control of single phase motors, Industrial control circuits, Trouble shooting in control circuits, Basic Concept of PLC , Electromagnetic Controllers, Electric Drives, Refrigeration & Air Conditioning

Topic 6: ELECTRICAL DESIGN

Electrical symbols and diagrams, Wiring materials and accessories, Light and fan circuits, Alarm circuits, Internal wiring, Assembly drawings, Electrical design, Armature winding of D.C. m/cs

Topic 7: POWER PLANT ENGINEERING

Thermal stations, Hydroelectric plants, Nuclear power plants, Diesel power plants, Gas turbine plants, Combined working of power plants, Non-Conventional Source of Energy

Topic 8: TRANSMISSION AND DISTRIBUTION

Electrical design of lines, Constructional features of transmission lines, Economic principle of transmission, Mechanical design of lines, Distribution systems, Construction of distribution lines, Power factor improvement, Underground cables, Carrier communication, Faults, Switch gear, Protective schemes, Protection against over voltages, Different types of substations

Topic 9: POWER ELECTRONICS

Introduction to Power Electronics, Power Semiconductor Diodes, Thyristors, Power Transistors, Controlled Rectifiers, A. C. Voltage Controllers, Choppers, Inverter, Power Supplies, High power switching devices, Thyristor and their operation, Thyristor application, Thyristor control of electric machines, PLC, Servo mechanism

Topic 10: ELECTRIC TRACTION

Electric traction drives, Power supply for traction, Mechanics of traction, Rectification equipment, Overhead equipment, Track circuit, Supervisory remote control, Rail and return path

Topic 11: MICROPROCESSORS DEVELOPMENT SYSTEM

Introduction to Microprocessor based system, Structure of 8085 Microprocessor, I/O Operating (8085 Microcomputer), I/O Devices (8085 Microprocessor), Microprocessor Application, Other Microprocessor & Micro controller, Microprocessor Systems, Testing & Debugging the Microprocessor based system

Diploma in Electronics Engineering–Syllabus

Topic 1: BASIC ELECTRICAL ENGINEERING

Basic terminology and their concept, D.C. circuits, Batteries, Capacitors, Electromagnetism, Electromagnetic induction, A.C. circuits, Transients and Harmonic & Polyphase circuits.

Topic 2: ELECTRONICS

Semiconductor diode, Bipolar Junction transistor, Single stage transistor amplifier, FET MOSFET & CMOS, Multi Stage & Power amplifier, Feedback amplifiers, Regulated power supply & Oscillator, Digital electronics, Operational amplifiers, Microprocessors, Communication engg. & Integrated Circuits

Topic 3: ELECTRONIC DEVICES AND CIRCUITS

Single stage amplifiers and Multistage amplifier, large signal amplifiers, concept of negative and positive feedback, oscillators (Hartley, Colpitt, Wein Bridge), Tuned voltage amplifiers, wave-shaping circuits, multi-vibrators and operational amplifiers, regulated DC supplies, working of various parts of CRT, measure frequency, voltage, time period and phase using CRO and DSO, RF signal generator, pulse generator and analyser, working principle of DC/AC bridges and meters.

Topic 4: DIGITAL ELECTRONICS

Importance of digitization, truth tables for all logic gates, logic functions with NAND and NOR gates, adder and subtractor circuits, truth tables of multiplexer, demultiplexer, encoder and decoder ICs, sequential circuit(Flip flops, counters and shift registers), A/D and D/A converters, features and applications of different memories

Topic 5: POWER ELECTRONICS

Introduction to Power Electronics, Power Semiconductor Diodes, Thyristors, thyristor family such as SCR, DIAC, TRIAC etc Power Transistors, Controlled Rectifiers, A. C. Voltage Controllers, Choppers, Inverter, Power Supplies, High power switching devices, Thyristor and their operation, Thyristor application, Thyristor control of electric machines, PLC, Servo mechanism, principle of Induction and dielectric heating, principle of transducer such as thermistor and piezoelectric crystal.

Topic 6: NETWORK FILTERS AND TRANSMISSION LINES

Concept of symmetrical, asymmetrical, balanced, unbalanced, T, PI, ladder, lattice, L and Bridge T networks, attenuators and filters, concept and applications of transmission lines, standing wave ratio and characteristic impedance of the line

Topic 7: COMMUNICATION ENGINEERING

Modulation and demodulation, modulation index of the Amplitude Modulated wave and frequency deviation of FM, AM Detector Circuit and FM detector, Pulse Modulation Techniques (PAM, PPM, PWM and PCM), Classification of different radio transmitters and radio receivers.

Topic 8: MICROPROCESSORS DEVELOPMENT SYSTEM

Introduction to Microprocessor based system, Structure of 8085 Microprocessor, I/O Operating (8085 Microcomputer), I/O Devices (8085 Microprocessor), Microprocessor Application, Other Microprocessor & Micro controller, Microprocessor Systems, Testing & Debugging the Microprocessor based system, data transfer techniques, architecture and pin detail of 8086, embedded system, embedded operating systems, PIC microcontroller and AVR microcontroller, interface sensors with microcontroller

Topic 9: WIRELESS AND MOBILE COMMUNICATION

Multiple Access Techniques for Wireless Communication (FDMA, TDMA and CDMA), Mobile Communication Systems(GSM and CDMA), SIM, LTE, Vo-LTE and mobile network, LAN, MAN, WAN

Topic 10: CONTROL SYSTEM

open loop and close loop system, various types of signals in control system, Transfer function of a Control System, first order and second order Control System, stability of a Control System, various controller in a Control System, controllers in various industrial applications

Diploma in Civil Engineering–Syllabus

Topic 1: Construction Materials

Overview of Construction Materials, Natural Construction Materials, Artificial Construction Materials, Special Construction Materials and Processed Construction Materials, Advanced Construction Materials, Advanced Concreting Methods and Equipments, Advanced Technology in Constructions, Hoisting and Conveying Equipment, Miscellaneous Machineries and Equipments

Topic 2: Basic Surveying

Overview and Classification of Survey, Chain Surveying, Compass Traverse Survey, Levelling and Contouring, Measurement of Area and Volume, Plane Table Surveying, Theodolite Surveying, Tacheometric surveying and Curve setting, Advanced surveying equipments, Remote sensing, GPS and GIS.

Topic 3: Mechanics of Material

Moment of Inertia, Simple Stresses and Strains, Shear Force and Bending Moment, Bending and Shear Stresses in beams and Columns.

Topic 4: Building Construction

Overview of Building Components, Construction of Substructure, Construction of Superstructure, Building Communication and Ventilation and Building Finishes, Conventions and Symbols, Planning of Building, Drawing of Load Bearing Structure, Drawing of Framed Structure, Overview of Building Services, Modes of vertical communication, Fire Safety, Plumbing Services, Lighting, Ventilation and Acoustics

Topic 5: Concrete Technology

Cement, Aggregates and Water, Different grades of concrete, Concrete Mix Design and Testing of Concrete, Quality Control of Concrete and Chemical Admixture, Special Concrete and Extreme Weather concreting.

Topic 6: Geotechnical Engineering

Overview of Geology and Geotechnical Engineering, Physical and Index Properties of Soil, Permeability and Shear Strength of Soil, Bearing Capacity of Soil, Compaction and stabilization of soil

Topic 7: Hydraulics

Pressure measurement and Hydrostatic pressure, Fluid Flow Parameters, Flow through pipes, Flow through Open Channel, Hydraulic Pumps, Introduction to Hydrology, Crop water

requirement and Reservoir Planning, Dams and Spillways, Minor and Micro Irrigation, Diversion Head Works & Canals.

Topic 8: Theory of structures

Direct and Bending Stresses in vertical members, Slope and Deflection, Fixed and Continuous Beam, Moment distribution method, Simple trusses, Design of Steel Tension and Compression Members, Design of Steel beams (Limit State Method), Design of Reinforced Concrete Beams by Limit State Method, Shear, Bond and Development length in Design of RCC member, Design of axially loaded RCC Column. Basics of maintenance, Causes and detection of damages, Materials for maintenance and repairs, Maintenance and repair methods for masonry Construction, Maintenance and repair methods for RCC Construction, Design of connections in steel structures, Steel Beams, Design of RC flanged beam, Design of slab, Design of RCC Column and Footing design: Uni-axial bending

Topic 9: Transportation Engineering

Overview of Highway Engineering, Geometric Design of Highway, Construction of Road Pavements, Basics of Railway Engineering, Track geometrics & Construction and Maintenance.

Topic 10: Construction Management

Construction industry and management, Site Layout, Planning and scheduling, Construction Contracts and Specifications, Safety in Construction

Topic 11: Estimating and Costing

Fundamentals of Estimating and Costing, Approximate Estimates, Detailed Estimate, Estimate for Civil Engineering Works, Rate Analysis.

Topic 12: Traffic Engineering

Fundamentals of Traffic Engineering, Traffic Studies, Road Signs and Traffic Markings, Traffic Signals and Traffic Islands, Road Accident Studies and Arboriculture. Basics of pavement Design, Fundamentals of pavement design, Design overview of Flexible and Concrete pavement, Pavement evaluation and Pavement Maintenance.

Topic 12: Green Building and Energy Conservation

Introduction to Green Building and Design Features, Energy Audit and Environmental Impact Assessment (EIA), Energy and Energy conservation, Green Building and Rating System

Diploma in Mechanical Engineering–Syllabus

Topic 1: MECHANICAL ENGINEERING

Introduction to Thermodynamics, Heat transfer & Thermal Power Plant, Steam Turbines, Materials and Manufacturing Processes, Machine Tools and Machining Processes, Process Planning and Process Engineering, Production Forecasting, Break-Even Analysis, Assembly Line Balancing, Material Management

Topic 2: MATERIAL SCIENCE & ENGINEERING

Crystal structures and Bonds, Phase diagrams, Ferrous metals and its Alloys, Non-ferrous metals and its Alloys, Failure analysis & Testing of Materials, Corrosion & Surface Engineering

Topic 3: FLUID MECHANICS & HYDRAULIC MACHINERY

Properties of fluid, Fluid Flow, Impact of jets, Hydraulic Turbines, Centrifugal Pumps.

Topic 4: MANUFACTURING ENGINEERING

Cutting Fluids & Lubricants, Broaching Machines, Welding, Gear Making, Grinding and finishing processes.

Topic 5: THERMAL ENGINEERING

Sources of Energy, Internal Combustion Engines, : I.C. Engine Systems, Performance of I.C. Engines, Air Compressors, Gas Turbines, Properties of Steam, Steam Generators, Steam Nozzles, Steam Turbines

Topic 6: MEASUREMENTS & METROLOGY

Introduction to measurements, Transducers and Strain gauges, Applied mechanical measurement, Limits, Fits & Tolerances, Gear Measurement and Testing, Machine tool testing

Topic 7: STRENGTH OF MATERIALS

Simple Stresses and Strains, Shear Force & Bending Moment Diagrams, Theory of Simple Bending and Deflection of Beams, Torsion in Shafts and Springs, Thin Cylindrical Shells

Topic 8: ADVANCED MANUFACTURING PROCESSES

Jigs & Fixtures, Jig Boring, Modern Machining Processes, CNC Milling Machines, Special Purpose Machines

Topic 9: THEORY OF MACHINES & MECHANISMS

Cutting Fluids & Lubricants, Broaching Machines, Welding, Gear Making, Grinding and finishing processes.

Topic 10: Design of Machine Elements

Introduction to Design, Design of simple machine parts, Design of Shafts, Keys, Couplings and Spur Gears, Design of Power Screws, Design of springs, Design of Fasteners

Topic 11: TOOL ENGINEERING

Metal Cutting, Machinability, Types of dies and construction, Die Design Fundamentals, Forming Dies, Pressure Die casting dies; metal extrusion dies; injection molding dies; forging dies; plastic extrusion dies

Topic 12: COMPUTER INTEGRATED MANUFACTURING/ CAD/ CAM

Computer Integrated Manufacturing (CIM), Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), Flexible manufacturing system (FMS), Computer aided production scheduling; computer aided inspection planning; computer aided inventory planning, Fundamentals of CAD/CAM, Surface Modeling, NC Control Production Systems.

Topic 13: INDUSTRIAL ROBOTICS & AUTOMATION/ MECHATRONICS

Fundamentals of Robotics, Robotic Drive System and Controller, Sensors, Robot kinematics and Robot Programming, Automation. Introduction to Mechatronics.

Topic 13: HEAT TRANSFER/ REFRIGERATION AND AIR-CONDITIONING

Conduction, Fins, Convection, Radiation, Heat exchangers, Introduction to Refrigeration, Refrigeration systems, Refrigeration Equipments, Refrigerants and lubricants, Refrigerant flow controls, Air conditioning

Topic 14: POWER PLANT ENGINEERING

Introduction to Power plant, Economics of power plant, Hydro power plant, Diesel and Gas turbine plant, Environmental impact of Power plant, Nuclear power plant, Material Handling System, Hoisting Machinery & Equipments, Conveying Machinery

Diploma in HR Examination Syllabus

Topic-I: Principles of Management – Introduction to Management, Planning & Decision Making, Organising & Staffing, Directing & Communication, Motivation & Leadership

Topic-II: BUSINESS ENVIRONMENT– – Concepts of Vision, Mission & Strategy Statements– Types of Environment:– Internal to the Enterprise– Value System, Management Structure and Nature, Human Resource, Company Image and Brand Value, External environment to the Enterprise, Forms of Business Organization, Global business environment, Business Process Management (BPM), Knowledge Process management (KPO) –E-Business– M-Commerce- Business foundation skills-Business Concept Development-Creative thinking-Critical thinking-Crisis management – Start up initiative Incubation- Government initiatives.

Topic-III: BUSINESS DECISION THEORIES– —Demand analysis: Meaning of demand— Law of demand— Classification of demand—Demand function—Measure of demand— Methods of measurement of demand. Supply analysis: Law of supply—Determinants of supply—Supply function— Elasticity of supply—Equilibrium, GDP—Methods of measurement of GDP—NDP— NNP-- GNP—considerations for measuring GNP—Income method--Expenditure method, Market structure—Monopoly—Duopoly—Oligopoly and Perfect competition, Consumer Behaviour, Cost Analysis: Fixed cost—Average fixed cost— Variable cost—Average variable cost—Total cost.

Topic-IV: MANAGEMENT INFORMATION SYSTEM – Introduction to MIS, Concepts of information - Nature of information - Definition and Types of management information, Value and cost of information - Types of information systems - Operations support system - Transaction Processing Systems - Decision support System - Process Control Systems - Executive support system - Formal and Informal information system - Knowledge Work Systems- Expert system Artificial intelligence, Planning information system - Developing information system - System Analysis and design - Implementing Information System acquisition - Managing and Controlling information system resources - Information resources management, ERP Concepts, Evolution of ERP, ERP packages, ERP Evaluation, ERP implementation.

Topic-V: Personnel Management: Functions, Structure of Personnel Department, Line and Staff, Job Analysis, Manpower Planning, Recruitment and Selection, Placement and Induction, Wage and Salary Administration, Job evaluation, Methods of Wage payment linking wages with productivity, Grievance handling and Disciplinary action.

Topic-VI: HRD Concepts: Evolution, Functions, Performance appraisal, Training and Development, Quality of worklife, Career planning, Quality circles, Training Programmes for workers. Management Development Programmes and Evaluation of training.

Topic-VII: Organisational Behaviour Concepts: Evolution. Role, Group dynamics, Motivation, Leadership. Job satisfaction, Morale, Patigue and Monotony Organisational change and Development, Organisational effectiveness.

Topic–VIII: Industrial Relations: Approaches. Industrial Relations System, Industrial disputes: Causes, Effects, Trends. Methods and Machinery for the settlement of Industrial disputes, Workers participation in Management. Code of discipline, Tripartite bodies, ILO, Industrial relations and the new economic reforms.

Topic-IX: Social Work & Human Growth: Human Growth & Development, Social Policy & Planning, Social Development, Counselling.

BHEL Examination Pattern – for General Section (Common Sections) For Supervisor Trainees (STs)

i) Questions on Test of Reasoning - 20 Questions
Venn Diagrams
Similar Pairs/ Analogies
Data Interpretation
Passage – True/False statements/ analogies
Logical Reasoning
Basic Maths/ Aptitude
Integers/ Percentages/ Prime Numbers etc

ii) Questions on General Knowledge - 10 Questions
Self-Explanatory – as per current trends, history, geography, political, sports etc

iii) Questions on General English - 20 Questions
04 Questions on closest meaning words/ Synonyms/ Antonyms
04 Questions on Reading Comprehension/Small Passages
04 Questions on sentence re-arrangement
04 Questions on sentence completion/ preposition use
04 Questions on misspelling/ wrong usage of word

Diploma in HR Examination Syllabus

Topic-I: Principles of Management – Introduction to Management, Planning & Decision Making, Organising & Staffing, Directing & Communication, Motivation & Leadership

Topic-II: BUSINESS ENVIRONMENT– – Concepts of Vision, Mission & Strategy Statements– Types of Environment:– Internal to the Enterprise– Value System, Management Structure and Nature, Human Resource, Company Image and Brand Value, External environment to the Enterprise, Forms of Business Organization, Global business environment, Business Process Management (BPM), Knowledge Process management (KPO) –E-Business– M-Commerce-Business foundation skills-Business Concept Development-Creative thinking-Critical thinking-Crisis management – Start up initiative Incubation- Government initiatives.

Topic-III: BUSINESS DECISION THEORIES– —Demand analysis: Meaning of demand—Law of demand— Classification of demand—Demand function—Measure of demand—Methods of measurement of demand. Supply analysis: Law of supply—Determinants of supply—Supply function— Elasticity of supply—Equilibrium, GDP—Methods of measurement of GDP—NDP—NNP-- GNP—considerations for measuring GNP—Income method--Expenditure method, Market structure—Monopoly—Duopoly—Oligopoly and Perfect competition, Consumer Behaviour, Cost Analysis: Fixed cost—Average fixed cost—Variable cost—Average variable cost—Total cost.

Topic-IV: MANAGEMENT INFORMATION SYSTEM – Introduction to MIS, Concepts of information - Nature of information - Definition and Types of management information, Value and cost of information - Types of information systems - Operations support system - Transaction Processing Systems - Decision support System - Process Control Systems - Executive support system - Formal and Informal information system - Knowledge Work Systems- Expert system Artificial intelligence, Planning information system - Developing information system - System Analysis and design - Implementing Information System acquisition - Managing and Controlling information system resources - Information resources management, ERP Concepts, Evolution of ERP, ERP packages, ERP Evaluation, ERP implementation.

Topic-V: Personnel Management: Functions, Structure of Personnel Department, Line and Staff, Job Analysis, Manpower Planning, Recruitment and Selection, Placement and Induction, Wage and Salary Administration, Job evaluation, Methods of Wage payment linking wages with productivity, Grievance handling and Disciplinary action.

Topic-VI: HRD Concepts: Evolution, Functions, Performance appraisal, Training and Development, Quality of worklife, Career planning, Quality circles, Training Programmes for workers. Management Development Programmes and Evaluation of training.

Topic-VII: Organisational Behaviour Concepts: Evolution. Role, Group dynamics, Motivation, Leadership. Job satisfaction, Morale, Patigue and Monotony Organisational change and Development, Organisational effectiveness.

Topic–VIII: Industrial Relations: Approaches. Industrial Relations System, Industrial disputes: Causes, Effects, Trends. Methods and Machinery for the settlement of Industrial disputes, Workers participation in Management. Code of discipline, Tripartite bodies, ILO, Industrial relations and the new economic reforms.

Topic-IX: Social Work & Human Growth: Human Growth & Development, Social Policy & Planning, Social Development, Counselling.

Supervisor Finance – Examination Syllabus

Topic 1: Accounting & Finance

Introduction of Indian Accounting Standards (Ind AS), Accounting for Share Capital & Debentures, Accounting for Corporate Restructuring (including inter-company holdings), Accounting and reporting of financial instruments, Share based payments, Financial Reporting by Mutual funds, Non-banking finance companies, Merchant bankers, Stock and commodity market intermediaries, Valuation and Developments in Financial Reporting

Topic 2: Fundamentals of Financial Management

The Capital Budgeting Process, Cash flow Estimation, Payback Period Method, Accounting Rate of Return, Net Present Value (NPV), Net Terminal Value, Internal Rate of Return (IRR), Profitability Index, Capital budgeting under Risk – Certainty Equivalent Approach and Risk- Adjusted Discount Rate

Financial Policy and Corporate Strategy, Project Planning and Capital Budgeting, Dividend Decisions, Indian Capital Market, Capital Market Instruments, Commodity derivatives, OTC derivatives, Security Analysis, Portfolio Theory and Asset Pricing, Financial Services, Mutual Funds, Exchange Traded Funds, Foreign Direct Investment, Foreign Institutional Investment, International Financial Management, Foreign Exchange Exposure and Risk Management, Mergers, Acquisitions and Restructuring.

Topic 3: Economics

Principles of Macro & Micro Economics, Development Economics, Industrial Economics, Money & Banking and International Economics.

Topic 4: Business Laws

The Indian Contract Act, 1872, The Sale of Goods Act, 1930, The Partnership Act, 1932, The Limited Liability Partnership Act, 2008 and The Negotiable Instruments Act 1881

COMPANY LAW & INSOLVENCY AND BANKRUPTCY CODE, 2016. Administration of Company Law [including National Company Law Tribunal (NCLT), National Company Law Appellate Tribunal (NCLAT), Special Courts];

Topic 5: Direct Tax Laws

The Income-tax Act, 2025 and Rules thereunder

Topic 6: Indirect Tax Laws including Goods and Services Tax & Customs & Foreign Trade Policy

Goods and Services Tax (GST) Law as contained in the Central Goods and Services Tax (CGST) Act, 017 and Integrated Goods and Services Tax (IGST) Act, 2017, Customs Law as contained in the Customs Act, 1962 and the Customs Tariff Act, 1975 and Foreign Trade Policy to the extent relevant to the indirect tax laws.

Topic 7: Banking

Bank Management and common banking terms, Bank Legislation, Electronic Banking and Risk Management

Topic 8: E-Commerce & Entrepreneurship

Technology used in E-commerce, Security and Encryption, IT Act 2000 and Cyber Crimes, Models and methods of e–payments (Debit Card, Credit Card, Smart Cards, e-money), digital signatures (procedure, working and legal position), payment gateways, online banking (meaning, concepts). E-commerce applications in various industries like {banking, insurance, payment of utility bills, online marketing, e-tailing (popularity, benefits, problems and features), online services (financial, travel and career), auctions, online portal, online learning, publishing and entertainment} Online shopping (amazon, snapdeal, alibaba, flipkart, etc.)

Entrepreneurship and Micro, Small and Medium Enterprises, Public and private system of stimulation, support and sustainability of entrepreneurship. Requirement, availability and access to finance.