SYLLABUS

Advertisement no. HRAQ/REC-EX-B/2026-03 dated 15/10/2026

GENERAL INFORMATION:

FOR ALL POST CODES COMPUTER BASED TEST (CBT) WILL CONSISTS OF FOLLOWING SECTIONS:

a) SECTION I (40 marks):

General English, Reasoning, Numerical Aptitude.

b) SECTION II (60 marks):

Questions based on Subject knowledge of concerned posts. Detailed syllabus is provided below, post code wise:

SYLLABUS FOR WRITTEN EXAM FOR THE POST OF
Superintending Research Scientist, Grade: C
[POST CODE - (CH-01)]

SI. No.	Topic	Description
1	Research Methodology, Scientific Investigation & Innovation	Scientific method, research design, hypothesis testing, experimental design, statistical analysis, design of experiments (DoE), uncertainty quantification and error analysis, validation and verification techniques, sensitivity analysis, scientific documentation, technical report writing, publications, intellectual property rights (IPR) / patents rules and regulations and technology transfer mechanisms, innovation management, translational research, technology development, including bench and pilot scale. Advanced multivariate statistical analysis, probabilistic modelling, reproducibility and research ethics.
2	Applied Science, Engineering & Energy Technologies	Principles and applications of science and engineering relevant to energy, hydrocarbons and industrial systems; upstream oil & gas operations; drilling and cementing technologies; production systems and artificial lift systems; reservoir engineering; flow assurance; advanced chemicals and materials; critical minerals processing and beneficiation; geoscience and subsurface systems; energy transition technologies; CCUS; hydrogen technologies; energy storage systems; engineering solutions for operational challenges; technology deployment, field validation and scale-up. Advanced topics include EOR/IOR, multiphase flow, Process intensification and integrated energy systems, Process Optimization and Green Chemistry Principles and Applications.
3	Data Analytics, Digitalization & Emerging Technologies	Scientific and engineering data analysis, statistical tools, modelling and simulation concepts, predictive analytics, AI and ML, digital transformation, monitoring and optimization of industrial systems, uncertainty-aware modelling, quantitative reasoning and analytical problem solving. Advanced components include AI/ML applications in reservoir modelling, materials design and process optimization, time-series analytics and hybrid modelling approaches.
4	Laboratory, Pilot Plant & Field Operations	Laboratory management, pilot-scale studies, field trials, testing methodologies, instrumentation and measurement principles, calibration, quality assurance, SOPs, laboratory documentation, validation protocols, technical evaluation, facility and consumables management. Advanced aspects include scale-up principles, process safety, advanced material synthesis & characterization techniques, field validation techniques.
5	HSE, Quality Systems & Regulatory Compliance	Occupational health and safety, hazard identification, risk assessment, process safety, environmental management, statutory compliance, Good Laboratory Practices (GLP), quality systems, incident investigation, risk mitigation, sustainability and responsible research practices. Advanced aspects include HAZOP, HAZAN, ESG frameworks and Lifecycle assessment.
6	Project Management, Technical Leadership & Resource Management	Planning, execution, monitoring and evaluation of engineering projects; scheduling and control; resource optimization; multidisciplinary coordination; stakeholder management; leadership; supervision; documentation; budgeting; contract and vendor interface; decision-making *and* risk management. *Advanced* components include R&D lifecycle management, commercialization strategy and innovation portfolio management.
7	Engineering Mathematics & Numerical Methods	Linear algebra, differential equations (ODEs and PDEs), numerical methods interpolation, regression, numerical integration, optimization techniques, stochastic methods, probabilistic modelling and uncertainty analysis with applications in reservoir simulation, transport phenomena (mass, heat, flow) and reaction engineering.
8	Modelling, Simulation & Computational Engineering	Mathematical modelling, process simulation, CFD fundamentals, reservoir simulation concepts, Multiphysics modelling, digital twin development, model validation and benchmarking. Advanced topics include multiscale modelling, high-performance computing and AI-integrated simulation.

***

SYLLABUS FOR WRITTEN EXAM FOR THE POST OF
Senior Officer (Mechanical)
[POST CODE - ME-02]

Sl. No	Topic	Description
1	Theory of Machines	Simple Mechanisms, Friction and Friction Drives Displacement, velocity, and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope. Analysis of Plane Motion with Velocity diagram, Acceleration diagram; Kinematic synthesis of linkages, Equilibrium of Rigid Bodies Analysis of Structures Friction Centre of Gravity and Moment of Inertia Lifting Machines Virtual Work and Energy Method Impulse, Momentum, Work and Energy Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain, Strain Rosette. Thin & Thick cylinders; shear force and bending moment diagrams; bending and shear stresses; deflection of beams; torsion of circular shafts. Eule/s theory of columns. Testing of materials with universal testing machine (Uniaxial Tension Test/ engineering stress-strain curves) Testing of hardness and impact strength: Rockwell, Brinell and Vickers and their relation to strength.
2	Machine Design	Types of Loads, Failure Theory, Designed stress and factor of safety, stress concentration, selection of materials, codes for design-BIS codes, Modes of Failure, Failure theories, Fits and Tolerance. Shafting: Design of shaft subjected to bending, torsion, axial and combined loading Keys, Cotter and Knuckle joint Coupling: Rigid and Flexible coupling Power Transmission Elements: Belt and Chain Drives, design of Flat and V-belts Design for static and dynamic loading; failure theories; fatigue strength and the S-N diagram; principles of the design of machine elements such as bolted' riveted and welded joints; shafts, gears, rolling and sliding contact bearings' brakes and clutches' springs. Design of Mechanical Springs – helical spring, Gears: Spur and Helical gear Design of Friction clutches – single and multidisc clutch, cone clutch, Brakes – Disc, cone, band and internal expanding shoes Tribology, Design of Bearings – radial and Thrust journal bearings, Selection of Rolling Contact Bearings
3	Vibrations	Basic Concepts Measurement of Vibrations Seismic transducers (ii) LVDT accelerometers (iii) Piezo-electric accelerometers Free and forced vibration of single degree of freedom systems' effect of damping; vibration isolation; Resonance; Critical speed of a shaft for whirling motion. Two Degrees of Freedom System (2DOF) Seismic Instruments Multi Degree of Freedom Systems (MDOF)
4	Engineering Mechanics	Equilibrium of Rigid Bodies Analysis of Structures Friction Centre of Gravity and Moment of Inertia Lifting Machines Virtual Work and Energy Method Impulse, Momentum, Work and Energy Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain, Strain Rosette. Thin & Thick cylinders; shear force and bending moment diagrams; bending and shear stresses; deflection of beams; torsion of circular shafts. Eule/s theory of columns. Testing of materials with universal testing machine (Uniaxial Tension Test/ engineering stress-strain curves,) Testing of hardness and impact strength: Rockwell, Brinell and Vickers and their relation to strength.
5	Engineering Materials	Structure and properties of engineering materials: Crystal Directions and Planes. Phase diagrams: Interpretation of binary phase diagrams and microstructure development; eutectic, peritectic, peritectoid and monotectic reactions Heat treatment (Alloy), stress-strain diagrams for engineering materials. Pattern making and sand casting – Pattern materials – Types – Pattern allowances. Core prints.

Sl. No	Topic	Description
		Moulding sand – ingredients – classification – sand additives – properties of moulding sand – sand preparation and testing. Green sand mould preparation. Cores and core making – Types of cores Principles of powder metallurgy. Principles of welding, brazing, and soldering.
6	Machining and Machine Tool Operations	Mechanics of machining; Basic machine tools - Machining, definition, and objectives. Geometry of cutting tools. Cutting Tool Specification - single and multipoint cutting tools and materials, Mechanics of metal cutting, Mechanism of chip formation, Cutting tools materials and methods of failure; Assessment of tool life. Economics of Machining. Non-Conventional Machining process - Principles of operation, Applications, Merits and Demerits of different non-conventional machining; Principles of work holding, Design of jigs and fixtures Kinematics of Machine Tools Measurement by Dynamometry
7	Metrology and Inspection	Introductory Concept of engineering metrology, Statistical Process Control, Tolerance, Limits of Size and Fits, Tool Room Measuring Instruments; Measurement of Screw Threads Measurement of Gears. Surface Texture Interferometry Alignment Testing
8	Production Planning and Control	Production Planning and Control (Forecasting Models, Aggregate Production Planning, Scheduling, Material Requirement Planning). Inventory control (EOQ Model, ABC, VED, FSN analysis) Modelling (Classification of inventory, Deterministic versus Stochastic problems situations, Formulation and solution of Deterministic inventory problems) Operations Research (Linear Programming, and solutions in such cases as Integer Programming Problems (IPP), Transportation problem (TP) and Assignment Problem (AP)) PERT & CPM. Network Analysis - PERT (Assumptions and computations related to PERT mode) & CPM (Crashing of jobs for minimum cost-time schedule for CPM models) Maintenance Management - Meaning and Types of maintenance, and their suitability, Standards of maintenance, Total Productive Maintenance (TPM).
9	Fluid Mechanics	Fluid Mechanics: Bernoulli's Theorem and its important applications, Viscosity, Co-efficient of Viscosity. Streamline and Turbulent flow, Reynolds Number, Critical velocity, Poiseuille's equation for flow of liquid through a tube, Motion of a Rigid body in a viscous medium, Rotational Viscometer Pressure and Fluid Statics, Kinematics of Fluids Dynamics of Fluid Flow Flow through pipes Compressible Flow Viscous Flow Turbulent Flow
10	Thermodynamics & Power Engineering	Basic Thermodynamics, Laws of Thermodynamics, Properties of steam, Air standard cycles, vapour compression refrigeration cycle, Fuels and Combustions, Boiler, properties of steam Basic Steam Power Cycles Steam Nozzles, Steam Turbines, Steam Condensers Concepts of regeneration and reheat and I.C Engines: Air-standard Otto' Diesel Air & Gas Compressors Gas Turbine Basic of Blower Psychrometry
11	Turbo machinery	Eular equation for turbo, Rankine and Brayton cycles, Impulse turbine- Pelton wheel, Reaction Hydraulic turbine- Franci's turbine; Centrifugal Pump and Reciprocating Pump; Fluid System - Fluid couplings, Hydraulic dynamometer, Gear Pumps.
12	Heat Transfer	Modes of Heat Transfer, 1-D heat conduction, heat transfer through fins, unsteady heat conduction, lumped parameter system, Heisler's charts, Thermal Boundary layer, Dimensionless parameters in freed forced convective heat transfer, heat transfer correlations for flow over flat plates & through pipes, effect of turbulence, Heat exchanger performance, LMTD & NTU method, Radiative heat transfer, Stefan Boltzmann law, Wein's Displacement Law, Black & Grey Surfaces, View factors, Radiation Network Analysis.
13	IC Engines	SI and CI Engines, Engine Systems and Components, Performance characteristics and testing IC Engines, Fuels, Emissions and emission control.
14	CAD/CAM	Basic concepts of CAD/CAM and their integration tools; additive manufacturing.
15	Basics of Energy and Environment	Conservation, environmental pollution and degradation, climate change, environmental impact assessment, basics of renewable energy.

***

SYLLABUS FOR WRITTEN EXAM FOR THE POST OF
Senior Officer (Petroleum)
[POST CODE - (PE-03))

SI. No	Topic	Particulars
1	Petroleum Geology	Geology of Petroleum -An Overview: Gravity methods of prospecting Stratigraphy & micro- paleontology: Structure, tectonics, and basin evolution: Source Rock Reservoir rock Petroleum Province: Geographic and geologic distribution of oil and gas field in India with special reference to northeast India
2	Geophysical Exploration & Prospecting	An overview of Exploration Geophysics Gravity methods of prospecting Magnetic methods of prospecting Electrical methods of prospecting Well logging Techniques of well logging (Types & Basic Principles) Log Interpretation Introduction to VSP Advances in Logging tools
3	Drilling Technology	Introduction to oil well drilling & Drilling process analysis. Subsurface conditions, pressure relations within formation and well bore, geomechanics, and fracture pressure. Drilling fluids, Chemistry & well control fundamentals. Drill string, Casing & Cementing Basic well planning: data acquisition and analysis, drilling program. Drilling optimization Directional drilling Drilling complications Air and gas drilling Drilling Services & automation, optimizing rate of penetration. Clay Mineralogy& Rheology of Drilling Fluids The Filtration properties of Drilling Fluids Practical Implementations and innovations in drilling fluids Cement Slurry
4	Fundamentals of Reservoir Engineering and Reservoir Rock & Fluid Properties	Introduction to Petroleum Reservoirs Reservoir Fluids and Phase Behaviour Reservoir Rock Properties: Porosity; Permeability; Fluid saturations. Wettability Fluid Flow in Reservoirs and Reservoir Rock-fluid Interactions Reservoir Drive Mechanisms Estimation of Petroleum Reserves Core analysis & Core preparation Crude oil and formation water analysis
5	Natural Gas Engineering	Introduction to Natural Gas Engineering Wellbore and Choke performance Gas flow measurement and fundamentals Importance of Unconventional Gas Reservoirs Natural Gas as an Alternative Fuel
6	Flow through porous media	Introduction Single-phase flow in porous media Multi-phase flow in porous media Effective properties of porous media Injection well location sweep Efficiency for pattern flood Displacement mechanisms Fluid flow in reservoirs Theories Modelling & Simulation
7	Production Technology	Introduction to Oil Recovery methods: Well Completion Design Well Activation methods. Performance Evaluation Flowing well performance Well stimulation Techniques. Artificial Lift methods
8	Exploration and Development of Oil & Gas Fields	Petroleum exploration methods Well prognosis and economic analysis: Principles of development of oil & gas fields

SI. No	Topic	Particulars
		Processing and integration of geological and geophysical data: Concept of sequence stratigraphy and its application in Petroleum Exploration Unconventional hydrocarbon system Future hydrocarbon exploration in India with special reference to Assam-Arakan Basin/ NE India
9	Geophysical Exploration and Data Processing	Electromagnetic methods of prospecting Elasticity and seismic waves Basic concepts of seismic methods Seismic data acquisition
10	Applied Reservoir Engineering	Flow Equations Oil well Testing Gas Well Testing Water Influx Immiscible Displacement Integrated Reservoir Management Reservoir Simulation
11	Surface Production Operations	Surface gathering system. Gas processing Liquid processing Surface handling of gas, oil and water Flow assurance Sand control
12	Enhanced Oil Recovery	Introduction Water injection Immiscible displacement Miscible drive Thermal recovery methods Chemical recovery methods Other methods Development of images Designing flow parameters
13	Health, Safety & Environment (HSE) and Risk Management (RM)	Introduction Health hazards in Petroleum Industry Safety Environment Principles of risk management Application of risk management Application of risk management in Upstream Oil Industry
14	Well Servicing	Sick well Work over operations &equipment Work over fluids Well Intervention
15	Oil Well Production Technology	Basics of Petroleum Geology Well Completion Design Well performance Artificial Lift methods Surface production operations
16	Petroleum Geoscience	Overview on Petroleum system (Source rock, reservoir rock, cap rock) Origin, migration and accumulation of petroleum Rock Eval Pyrolysis analysis. Maturation of source rock (Time Temperature Index). Types and distinguishing properties of reservoir rocks & fluids Reservoir Trap- types and genesis Concept of life cycle of an oilfield Different reservoir drive mechanisms and their effect on hydrocarbon recovery Enhanced Oil Recovery (EOR) techniques Sandstone diagenesis and its effects on reservoir properties Clay mineral types and its impact in reservoir rock Principles and application of wireline logs in reservoir studies Brief overview on types and occurrence unconventional hydrocarbon resources Geographic and geologic distribution of oil and gas field in India with special reference to northeast India Overview on role of regulatory bodies on E&P business in India (i.e. NELP/HELP etc.)

***

SYLLABUS FOR WRITTEN EXAM FOR THE POST OF
Senior Accounts Officer / Senior Internal Auditor
[POST CODE - (AC-04)]

SI. No.	Topic	Description
1	Financial Accounting & Reporting	Accounting Standards- Introduction and Overview, Carve outs/ins in Ind ASs vis-a-vis international Financial Reporting Standards (IFRSs), Preparation of Financial statements of Company viz. Cash flow Statement (Profit and Loss Account, Balance Sheet and Cash Flow Statement)- Profit/Loss prior to incorporation as per Schedule IT of Companies Act, SEBI Regulations only related to financial matters excluding Secretarial issues, Internal Financial Controls (FC).
2	Cost and Managing Accounting	Introduction to Cost Accounting, Materials, Labor, Overheads, Non-Integrated Accounts, Methods, Job and Batch, Contract, Operating, Process and Operation, Standard Cost, Marginal Costing, Budget and Budgetary Control, Cost Management, Cost Volume Profit Analysis, Pricing Decisions, Budgets and Budgetary Control, Standing Costing and Variance Analysis, Transfer Pricing, Cost Management in Service Sector and Financial Decision Modelling, Employee Stock Option and buy back of securities, Capital Budgeting.
3	Company Law and Allied Laws	Company Law 2013, Insolvency and Bankruptcy Code 2016, The Indian Contract Act, 1872; The Negotiable Instrument ACT, 1881, The Payment of Bonus Act 1965, The Foreign Exchange Management Act, 1999.
4	Direct Tax Laws	The Income Tax Act, 1961 and Rules thereunder.
5	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 (COST) Act, 2017 and Integrated Goods and Services Tax (JOST) 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.
6	Auditing and Assurance	Auditing Concepts, Auditing and Assurance Standards, Preparation for an Audit, Internal Control, Vouching, Verification of Assets and Liabilities, Company Audit, Audit Report, Special Audit, Cost Audit and Record Rules, Risk Analysis & Mitigation.

***

SYLLABUS FOR WRITTEN EXAM FOR THE POST OF
Hindi Officer (Official Language)
[POST CODE - (HO-05)]

Sl. No	Course title
1	The Union's Official Language policy, Constitutional provisions, President's Order - 1960, Official Language Resolution - 1968 (Official Language Act, Rules and Official Language Program).
2	Government institutions and projects working related to the official language Hindi.
3	National Language and Official Language.
4	Development of the Hindi language and literature.
5	History of Hindi Literature.
6	Hindi Literary Studies, Hindi Poetry, Hindi Novel, Hindi Story, Hindi Play.
7	Hindi grammar rules, vocabulary, usage and sentence correction etc.
8	Prominent Hindi writers and their works.
9	Modern trends in Hindi literature / criticism.
10	History and development of the Devanagari script.
11	Translation from Hindi to English and from English to Hindi, vocabulary/technical terminology.
12	Scientific and Technical Translation and Terminology.
13	IT tools related to Hindi.
14	Hindi in e-governance.
15	General knowledge related to Hindi.
16	English language and grammar rules, vocabulary and usage, sentence corrections etc.
17	English and Hindi passage-based questions.

***

SYLLABUS FOR WRITTEN EXAM FOR THE POST OF CONFIDENTIAL SECRETARY
[POST CODE – (CS 06)]

Sl. No	Topic	Syllabus
1	TYPING	• Methods of typing, • Centering • Typing of letters, blocked, semi blocked and NOMA simplified with open closed and mixed punctuations, • Typing of addresses on envelopes, inland and postcards including window display chain feed. • Typing of annexure and appendices to letters. • Tabular typing Correction of errors on the carbon copies • Typing on printed forms • Typing from recorded tapes • Personal habits and work habits, personal appearance, willingness, promptness, initiative, trustworthiness, punctuality, etc. Following instructions/directions.
2	SHORTHAND ENGLISH	• Introduction to Shorthand, Consonants: Definition, Classification, arrangements and directions, table of consonants, Joining of Strokes • Vowels: Long & Short Vowel, Dot & Dash Vowel, Places of Vowel, following and preceding vowel, Intermediate vowel, places for joined strokes & vowel. • The Consonants, the Vowels, Intervening Vowels and Position, Grammalogues, Punctuation, Alternative signs for `r' and `h'. • Dipthongs and abbreviated `W'. Phraseography including tick 'the'. • Representing `S' and `Z' with circle and strokes, large circles `sw' and `ss' or `sz'. Loops `ST' and `STR', initial hooks to straight strokes and curves, `n' and `f' hooks, alternative forms for `fr' and `vr' etc. with intervening vowels. Circle and loops to final hooks, the shun hooks. The aspirate, upward and downward 'r', upward and downward 'l' & 'sh', compound consonants, vowel indication. The halving principle, the doubling principle, dipthonic or two vowel signs, medial semicircle. Prefixes and negative words, suffixes and terminations. Special list of words. • Contraction, Special Contractions, Figures, etc, Proper Names, etc., Essential Vowels, Intersections, Advanced Phraseography. Different Phrases- Business, Political, Banking & Stock Broking, Insurance and Shipping, Technical & Railway, Legal etc.
3	OFFICE MANAGEMENT	• Importance of Filing and its various kinds of proformas used in organizations and institutions. • Office-Introduction, Importance of Office, Departments of Office. Functions, Duties and Characteristics of Office Manager. Office Accommodation and Environment - Office building: size, layout, safety and security measures - Reception: Importance, shape and size, control - Communication : Feature, classification, barriers. - Arrangement and adjustment: Furniture, allotment of seats, chambers, cabins rooms etc. - Handling of correspondence and market registers, filling forms and stationery. Office Layout-Types of Office Layout, Open and Private Office. • Office Machines, manuals, charts and reports - Kind of office machines (Computers and word processors), calculators, etc. - Objectives and advantages of various machines. - Use of machines, installing, handling, maintenance. - Objectives and advantages of office manuals charts, preparation and play of manuals and charts. - Kind of reports, report preparation, enquiries. • Office Equipments: Types of Office Equipment and Mailing Room Equipments. Photocopier and Communicating Equipments. Other useful equipments – Duplicating Machine, Intercom, EPBX, Electronic Stencil Cutter, Personal Computer, Internet Fax, Zerox etc. Networking - LAN, MAN, WAN Using internet, sending and receiving e-mail messages; searching, Information from websites by the use of search engines. • Personnel Management, Supervision, Control and coordination - Office staff (Peon, daftari, clerk, technical staff, supervisors, accountant, manager, etc.) Selection, training and development - Supervision: Importance and span of supervision-Discipline: Importance and manner of office control, work control and work distribution.

Sl. No	Topic	Syllabus
4	**SECRETARIAL PRACTICE**	• Secretary: Roles and responsibilities, definition, need and importance, appointment and dismissal, work, duties, rights and liabilities, memorandum of association and secretary, articles of association and secretary, prospectus and secretary. • Company management and administration: Definition, importance and kinds, directors: qualification and number, appointment, removal, powers, duties and liabilities, remuneration, prevention of oppression and mismanagement, compromise, arrangement. Company formation and incorporation, promoter, capital subscription, company and association, memorandum and articles, prospectus and statements, meetings and Company Act. Share and debentures, application, allotment, transfer and transmission, calls and forfeiture, dividend and interest, account and audit, taxes. • Official Correspondence: Difference between official letter and demi official letter. Formal and informal letters. Types and differences. Writing applications, drafting letters, complaint, notices. Preparation of agenda/minutes and reports, circular & memorandum etc. Commercial, officials, demi official, meaning, importance, objectives, sales letter, trade order agency correspondence, import, export trade, secretarial correspondence, application for jobs, post of accountant, lecturer, reminder. • Communication Skills and its introduction: Communication and its importance, Principles of effective communication, Types of communication - verbal, non-verbal, written, email, talking on phone. Non-verbal communication - characteristics, components- Para-language, Body language. Barriers to communication and dealing with barriers. Handling nervousness/ discomfort. Listening Skills Listening-hearing and listening, effective listening, barriers to effective listening, guidelines for effective listening. Triple- A Listening - Attitude, Attention & Adjustment. Active listening skills. Facing interviews- Manners, etiquettes, dress code for an interview, Do's & don'ts for an interview, Behavioral Skills- Problem solving Confidence building Attitude. • GENERAL KNOWLEDGE: Energy Conservation, Global Warming, Relationship between society and environment, ecosystem and factors causing imbalance. Welfare Acts Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act, Accident & Safety- Accident prevention techniques-- control of accidents and safety measures.
5	**BASIC COMPUTER KNOWLEDGE**	• Concept and Importance of Computer in Communication. General Idea of various operating systems, Computer Fundamentals: Introduction, Definition, Utility, types and applications of Computers. Hardware: Definition & Introduction, Motherboard, Processor, Input & Output Devices and Storage devices. Software: Definition & types of Software, Introduction of MS-Excel: Opening a Worksheet; Entering text in worksheets, Editing Excel - selecting cells, editing cell contents; saving; printing. Internet.

***