Syllabus for the Non– Faculty Positions
(Ref No. SPAV/Admin/Estt./Non-Teaching, dated.19.06.2023).

Section Officer: (Level 8)

General Studies: Questions will be designed to test the ability of the candidate's General Studies viz., General science, current events of national and international importance. History of India and Indian National Movement, Indian and World Geography, Indian Polity & Economy.

In current events, knowledge of significant national and international events will be tested in History of India, emphasis will be on broad general understanding of the subject in its social, economic and political aspects. Questions on the Indian National Movement will be on Geography of India. Questions on the Geography of India will relate to physical, social and economic of Geography of the Country, including the main features of Indian agricultural and natural resources. Questions on Indian Polity and Economy will test Knowledge of the Country's Political system and Constitution of India.

Arithmetic Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability: Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain Knowledge:
General Financial Rules, Manual of Procurement of Good and Services, Purchase procedures, Tenders, Government e-Marketplace, Stores, Academic administration and Examinations, Govt. Office Procedure, Establishment, Income Tax, Accounts & Finance, Audit Matters in an Institute of Higher Education / University, RTI, National Education Policy, Negotiable Instrument Act, GST, CCS (conduct Rules), CS(MA) Rules, CGHS, Pension and NPS, Leave Rules, LTC, FR & SR, Disciplinary Proceedings, ICC (The Prohibition And Sexual Harassment Of Women At Workplace (Prevention, Redressal) Act, 2013), RTI and Anti-Ragging Acts / Regulations

Financial Administration: Financial regulations, financial administration, GFR (General Financial Rules), Purchase procedures, Accountancy, Bank reconciliation and Taxation provisions etc.

There shall be no negative marking for wrong answers. The merit list will be prepared based on the highest marks scored by the candidates in the written test.

Private Secretary (Level 7)

General Studies: Questions will be designed to test the ability of the candidate's General Studies viz., General science, current events of national and international importance. History of India and Indian National Movement, Indian and World Geography, Indian Polity & Economy.

In current events, knowledge of significant national and international events will be tested in History of India, emphasis will be on broad general understanding of the subject in its social, economic and political aspects. Questions on the Indian National Movement will be on Geography of India. Questions on the Geography of India will relate to physical, social and economic of Geography of the Country, including the main features of Indian agricultural and natural resources. Questions on Indian Polity and Economy will test Knowledge of the Country's Political system and Constitution of India.

Arithmetic Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability : Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain Knowledge:
CCS (conduct Rules), Leave Rules, LTC, FR & SR, ICC (The Prohibition and Sexual Harassment of Women at Workplace (Prevention, Redressal) Act, 2013), Administration of higher education institute, such as powers and functions of the authorities, framing of curricula and evaluation procedures, procedure for processing cases, Executive Council/BOG, Academic Council/Senate, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the higher institute. For this purpose candidates may go through the Act, Statutes and Ordinances of any Higher Educational Institute/ University, RTI.

Skill Test: Short hand English (100WPM) and typing English (40 WPM)

Personal Assistant: (Level 6)

Arithmetic Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability : Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain Knowledge:
CCS (conduct Rules), Leave Rules, LTC, FR & SR, ICC (The Prohibition And Sexual Harassment Of Women At Workplace (Prevention, Redressal) Act, 2013), Administration of higher education institute, such as powers and functions of the authorities, framing of curricula and evaluation procedures, procedure for processing cases, Executive Council/BOG, Academic Council/Senate, Finance Committee, Procedure for making of Statutes, Ordinances and Regulations, and other matters connected with the working of the higher institute. For this purpose candidates may go through the Act, Statutes and Ordinances of any Higher Educational Institute/ University, RTI.

Skill Test: Short hand English (100WPM) and typing English (40 WPM)

Accountant : (Level 6)

Arithmetic Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability: Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain knowledge : LTC, FR & SR, General Financial Rules, Manual of Procurement of Good and Services, Purchase procedures, Government e-Marketplace, salaries & wages, Income Tax, Accounts, Finance and Audit Negotiable Instrument Act, GST, Pension and NPS, FR & SR, Computerised Knowledge in Financial management and Procedures, working knowledge in Tally and other accounting software.

Library Assistant: (Level 3)

Arithmetical Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability : Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain Knowledge:

Library, information and society : Types of libraries, laws of library science, functions of the library, role of professional association, resource sharing, library networks (like DELNET, NICNET, etc.), library consortia, national and international information systems like NISSAT, NASSDOC, INSDOC, DESIDOC etc. and IPR system in India including Patent Act.

Information sources and services : Primary, secondary and tertiary sources, physical and online resources, library services (circulation, reference, referral, Current Awareness Services (CAS), Select Dissemination of Information (SDI), newspaper clipping services, document delivery service etc.), literature search, information storage and retrieval system, databases services, digitization, user education and awareness programs.

Organising and managing information: Types of classification (Dewey Decimal Classification (DDC), Colon Classification etc.), cataloguing (AACR 2 and MARC 21), indexing system (subject headings), metadata, interoperability and basic housekeeping operations like circulation, acquisition, cataloguing, serial control etc.

ICT applications in the libraries: Library automation using integrated library management system, basic computer and networking applications (like word processing, presentation and spreadsheets, communication protocols etc.), database management system, e-resources (e-books, e-journals), online databases including citation databases. Open access resources, databases, open access library software system like GSDL, Koha, New GenLib, Dspace, Joomla and Drupal etc., barcode and RFID technology.

Management of library and information centre: Planning (physical, infrastructure and resources), maintenance of library, acquisition of resources, budgeting, inventory/stock verification system, preservation of resources and human resource management.

Junior Superintendent (Technical): (Level 6)

Arithmetic Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability : Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain Knowledge

Linux System Administration: Linux User Administration, Access Control, Process Management, Hardware, Hard Disks (and Other Secondary Storage) mounting procedures, File Systems, Booting Linux, System-V Init and the Init Process, Systemd, Software Package Management Using Debian Tools, Package Management with RPM and YUM

Database Administration: User Accounts, Database Authentication, Encryption, The Records in a Document Database, Collections: Grouping Documents, Create Database, table and queries, Data Type, mongo DB installation, Data modelling, storage classes, mongo DB Replication

Windows Server Administration: Installation of Windows Server, Windows Server file systems, NTFS Security, Installation and administration of Active Directory services, Create and administer user and group accounts, user and group policies, Network protocols and services supported by Windows Server, Enable and configure Routing and Remote Access Service, Backup and restoration of data, Implementation of a disaster recovery plan, Monitoring and optimizing performance of a Windows Server implementation, LDAP

Network Management: Network hardware – LAN –MAN – WAN, Internet – network software – protocol hierarchies – reference models – OSI – TCP/IP. Data link layer design issues – flow control and ARQ techniques. Data link protocols – HDLC, PPP. MAC sub layer – IEEE 802 for LANs. High speed LANs – Gigabit Ethernet. Wireless LANs – 802.11 standards. Network hardware devices (Hub, Switch, Modem, Router, Bridge, Repeaters, Firewall) Network layer – routing – shortest path routing, distance vector routing, link state routing, RIP, OSPF. Congestion control algorithms – QoS. Internetworking – network layer in internet. IPv4 – IP Addressing – sub-netting, super-netting.

Computer Networks: Internet control protocols – ICMP, ARP, RARP, BOOTP. Internet multicasting – IGMP. Exterior routing protocols – BGP. IPv6 – addressing – issues. Transport Layer – TCP & UDP. Application layer –FTP, DNS, electronic mail, MIME, SNMP, Network configurations files and networking commands. Spanning Tree Protocol. Managing traffic with Access Lists. Troubleshooting. Client-Server communication using socket programming. Configuring network services - TELNET, SSH, FTP server, web server, file server, DHCP server and DNS server.

Web Technologies: Internet and World Wide Web. HTML and XHTML - basic text markup, images, hypertext links, lists, tables, forms, HTML5, Cascading Style Sheets. Frameworks. World Wide Web – web browsers, web servers, Uniform Resource Locators, Hypertext Transfer Protocol. Content Management System. JavaScript – object orientation, primitives, operations, control statements, object creation and modification, arrays, functions. Java Script HTML DOM. Introduction to data interchange formats. XML – syntax, XML document structure, namespaces, XML schemas. Displaying XML documents with CSS, XSLT Style Sheets, XML applications. JSON – overview, syntax, datatypes, objects, schema, comparison with XML. Overview of PHP. Simple applications like login forms after setting up a LAMP stack

Technical Assistant: (Level 3)

Syllabus for Technical Assistant for Computer lab

Arithmetic Ability: Computation of Decimal and Fractions, Relationship between numbers, Percentages. Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Time and distance, Time and work, arithmetical reasoning, arithmetic number series.

Reasoning Ability: Analogies, similarities and differences, problem solving, analysis, decision making, observation, relationship concepts, coding and decoding, statement conclusion. Number coding / decoding.

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge.

General English: Spot the Error, Fill in the Blanks, Synonyms / Antonym, Spellings / detecting mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active / Passive Voice of Verbs, Conversion into Direct / Indirect narration, shuffling of Sentence parts, Shuffling of Sentences in a passage, Comprehension Passage.

Domain Knowledge

Linux System Administration: Linux User Administration, Access Control, Process Management, Hardware, Hard Disks (and Other Secondary Storage) mounting procedures, File Systems, Booting Linux, System-V Init and the Init Process, Systemd, Software Package Management Using Debian Tools, Package Management with RPM and YUM

Database Administration: User Accounts, Database Authentication, Encryption, The Records in a Document Database, Collections: Grouping Documents, Create Database, table and queries, Data Type, mongo DB installation, Data modelling, storage classes, mongo DB Replication

Windows Server Administration: Installation of Windows Server, Windows Server file systems, NTFS Security, Installation and administration of Active Directory services, Create and administer user and group accounts, user and group policies, Network protocols and services supported by Windows Server, Enable and configure Routing and Remote Access Service, Backup and restoration of data, Implementation of a disaster recovery plan, Monitoring and optimizing performance of a Windows Server implementation, LDAP

Network Management: Network hardware – LAN –MAN – WAN, Internet – network software – protocol hierarchies – reference models – OSI – TCP/IP. Data link layer design issues – flow control and ARQ techniques. Data link protocols – HDLC, PPP. MAC sub layer – IEEE 802 for LANs. High speed LANs – Gigabit Ethernet. Wireless LANs – 802.11 standards. Network hardware devices (Hub, Switch, Modem, Router, Bridge, Repeaters, Firewall) Network layer – routing – shortest path routing, distance vector routing, link state routing, RIP, OSPF. Congestion control algorithms – QoS. Internetworking – network layer in internet. IPv4 – IP Addressing – sub-netting, super-netting.

Computer Networks: Internet control protocols – ICMP, ARP, RARP, BOOTP. Internet multicasting – IGMP. Exterior routing protocols – BGP. IPv6 – addressing – issues. Transport Layer – TCP & UDP. Application layer –FTP, DNS, electronic mail, MIME, SNMP, Network configurations files and networking commands. Spanning Tree Protocol. Managing traffic with Access Lists. Troubleshooting. Client-Server communication using socket programming. Configuring network services - TELNET, SSH, FTP server, web server, file server, DHCP server and DNS server.

Web Technologies: Internet and World Wide Web. HTML and XHTML - basic text markup, images, hypertext links, lists, tables, forms, HTML5, Cascading Style Sheets. Frameworks. World Wide Web – web browsers, web servers, Uniform Resource Locators, Hypertext Transfer Protocol. Content Management System. JavaScript – object orientation, primitives, operations, control statements, object creation and modification, arrays, functions. Java Script HTML DOM. Introduction to data interchange formats. XML – syntax, XML document structure, namespaces, XML schemas. Displaying XML documents with CSS, XSLT Style Sheets, XML applications. JSON – overview, syntax, datatypes, objects, schema, comparison with XML. Overview of PHP. Simple applications like login forms after setting up a LAMP stack

Syllabus for Technical Assistant for Climatology lab

General English: Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

Data Interpretation: Pie Chart, Bar Chart, Line Chart, Table Chart

Computer knowledge applications and Awareness: Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge like AUTOCAD etc.

Domain Knowledge

Basic Knowledge on Architecture & Climatology: Understanding of the basic principles of climatology and environment, Introduction to Climatology, Movement of earth around sun, Different elements of climate like: Wind, temperature, humidity, precipitation and pressure, Different climatic zones, Orientation of building with respect to above mentioned elements of climate, Effect of climate on man and shelter, Relation of Climate and comfort, Macro-micro climatic effects, Concept of comfort zone and bio-climatic chart, Climatic evaluation by season, Sun Control and shading devices (basics), Solar Chart (sun path diagram), Orientation for sun, Internal and external sun protection devices, Natural lighting, Introduction and objectives of Solar Passive Design, Passive solar heating and cooling, Wind control, Orientation with respect to wind, Wind protection devices, Use of building materials with respect to climate, Concrete, Brick, Glass, Plastics, Stone, Insulating material, Environment and Ecology, Basic elements of ecology, Concepts of natural cycles in Eco-system, Source of noise and air pollution, their effects and controls, Use of landscape elements for micro and macro climate control, Introduction to climate change, principle causes and effects- methods of mitigating climate change.

Syllabus for Technical Assistant for Landscape Lab

Aptitude:
Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series.

General English:
Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

Computer Competency:
Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge

Data Interpretation: Pie Chart, Bar Chart, Line Chart, Table Chart

Domain Knowledge

Horticulture and Botany:
Plant identification, botanical nomenclature, Irrigation systems and scheduling, management and maintenance of landscape areas, project scheduling, estimation of hard and soft landscape component. Lawn establishment, plant propagation techniques and Plant nutrient and health. Pruning techniques, Plants establishment and transplantation. Interior landscaping. Substrate preparation and soil managed.

Aptitude:
Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series.

General English:
Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

Computer Competency:
Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge

Domain Knowledge

Introduction to Art Lab Technology
Overview of the role and responsibilities of an art lab technician. Understanding the importance of art labs in supporting artistic and creative processes.

Art Materials and Tools
Identification and classification of various art materials such as paints, pigments, brushes, canvases, paper, etc. Understanding the properties of different art materials and their applications. Familiarity with art tools including brushes, palettes, easels, and more.

Lab Safety and Maintenance
Proper handling, storage, and disposal of art materials. Health and safety protocols in the art lab environment. Basic maintenance of lab equipment and tools.

Art Techniques and Processes
Basic techniques in drawing, painting, sculpture, and other art forms. Overview of various artistic processes such as mixing colors, layering, texture creation, etc.

Digital Art Tools
Introduction to digital art tools, software, and equipment used in art labs. Basic skills in using graphic tablets, digital painting software, and image editing tools.

Studio Organization
Setting up and organizing an art studio or lab space. Arranging materials for easy access and efficient workflow.

Artwork Presentation and Documentation
Techniques for documenting and archiving artworks. Basics of framing, mounting, and displaying art pieces.

Art Lab Management
Inventory management of art supplies and equipment. Budgeting and resource allocation for the art lab.

Ethical Considerations
Ethical responsibilities related to handling and preserving artworks. Respecting artists' rights and intellectual property.

Emerging Technologies in Art

Exploration of new technologies and their impact on the art industry.
Introduction to concepts like virtual reality, 3D printing, and interactive installations.

Syllabus for Technical Assistant for Carpentry Lab

Aptitude:
Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series.

General English:
Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

Computer Competency:
Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge

Domain Knowledge

Basic Woodworking Skills
Introduction to different types of wood and their characteristics.Basic woodworking tools and their uses: saws, chisels, planes, drills, etc. Measurement techniques, marking, and layout for accurate cuts and joints.

Construction Drawings and Blueprints
 Understanding architectural and construction drawings. Reading and interpreting blueprints, plans, and technical diagrams.

Carpentry Safety
Health and safety protocols specific to carpentry work.Proper handling of tools and machinery to prevent accidents.

Building Materials
Understanding different types of building materials used in carpentry, including lumber, plywood, and composite materials.

Basic Carpentry Joints
Introduction to basic woodworking joints such as butt joints, lap joints, mortise and tenon joints, etc. Hands-on practice in creating these joints.

Carpentry Techniques
Framing techniques for walls, roofs, and floors. Installation of doors, windows, and trim. Basics of stair construction.

Finishing and Surface Treatments
Sanding, staining, painting, and sealing wood surfaces. Applying varnishes, paints, and other finishes to achieve desired appearances.

Mathematics for Carpentry
Practical math skills required for accurate measurements, angles, and calculations.

Estimation and Costing
Basics of estimating materials and costs for carpentry projects. Budgeting and resource allocation for different projects.

Tools and Equipment Maintenance
Proper maintenance and care of carpentry tools and equipment. Sharpening, cleaning, and storing tools.

Environmental Sustainability
 Awareness of sustainable practices in carpentry, including wood sourcing and waste reduction.

Workplace Communication and Collaboration
Effective communication within a construction team. Collaboration with architects, contractors, and other professionals.

Syllabus for Technical Assistant for Conservation Lab

Aptitude:
Averages, Number System, Profit and Loss, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Clock, Simplifications, Odd Man Out Series.

General English:
Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

Computer Competency:
Working knowledge of computer applications in MS office, Internet, basic hardware and software knowledge

Domain Knowledge

Surveying
Principles of Surveying, Introduction to surveying, Types of surveys (plane, geodetic, cadastral, etc.), Basic surveying terminology, Measurements and Instruments, Distance measurement techniques (tape, electronic, laser), Angle measurement methods (theodolites, total stations), Leveling and height measurement, Land Surveying, Cadastral surveys and land division, Topographic surveys and contour mapping, GPS, GPS data collection and processing, Applications in surveying and mapping

Documentation
Architectural Documentation, Importance of documentation in architecture, Types of architectural drawings (plans, elevations, sections, etc.), Scale, line types, and conventions, Construction Documents, Working drawings and specifications, Detailing and annotations, Digital Documentation, Integration of digital tools in documentation processes

3D Mapping
Basics of 3D Mapping, Introduction to 3D mapping and modeling, Photogrammetry and LiDAR/ GIS technologies, LiDAR/GIS Data Processing, LiDAR/GIS data acquisition and point clouds, Filtering, classification, and feature extraction, Generation of digital terrain models (DTMs) and digital surface models (DSMs), Aerial and terrestrial photogrammetry, Camera calibration and image orientation, 3D reconstruction from photographs

Computer Applications in Architecture
Introduction to Computer Applications, Role of computers in architecture and design, Software tools for architectural planning and visualization, Architectural Visualization, 3D modeling and rendering, Virtual reality (VR) and augmented reality (AR) in architecture, Walkthroughs and flyovers etc. , Structural analysis using software, Daylight analysis and shading studies, BIM etc.