Departmentof Information Technology

Senior Technician

Stage-I (Screening Test)

Stage-I (Screening Test): A screening test   shall be conducted in the first phase in form of multiple choice written test. Written test shall be of **90 minutes'** duration comprising of **75 questions**. Each **correct answer will be awarded One [1] mark** and for each **wrong answer One-fourth [1/4] mark shall be deducted**. Screening test shall consist of questions on **General English**(Tenses, Active and Passive, Direct and Indirect speech, Punctuation, Correction of sentences, One word substitutes, Modals, Articles, Clauses, Synonyms, Antonyms, Idioms and Phrases); **Numerical Aptitude Arithmetic**(Simplification of Fractions, Simple and Compound Interest, Profit and Loss, Percentage, Averages, Number System, Time and Work, Problems on Trains, Calendar, Area, Problems on Numbers, Square root, Cube root, Time and Distance and Other basic Arithmetic related matters);**Reasoning and Data Interpretation** (Number Series Compilation, Missing Number finding, Pattern series, Direction Sense Test, Series Compilations, Classification, Missing Character finding, odd man out, Blood relations, Analogy, Coding and Decoding, Letter and Symbol Series, Verbal reasoning, Statement and Conclusions, Letter and Symbol Series, Logical Problems, Arithmetic reasoning, Logical Sequence of words, Pie Chart and Bar Chart).

Eligible candidates **Ten Times** of the positions in each category will be screened for the Stage-II subject to the fulfillment of all educational qualification etc. as per the Recruitment Rules-2019.

Stage-II (Skill test)

Stage-II (Skill Test): The skill test will be of qualifying nature.
Laboratory Experiments etc. as per nature of the postshall be conducted in the respective laboratories/field. Minimum qualifying marks in the skill test will be [UR:30%; EWS:27%; OBC:27%; SC;20%; ST:20%; PwD:15%].

The candidates, who will qualify the skill test, will be called for the final written test. The Candidates appearing in the written test must ensure their eligibility for the particular category

of post. The documents in support of their eligibility shall be verified before the Final test. If any candidate will not have requisite qualification etc. as per the post for which he is appearing will not be allowed to sit in the final test (Stage-III).

Stage-III (Final test)

Stage-III (Final Test): Final written test shall be of 2 hours duration comprising of 100 multiple choice questions.

Each **correct answer will be awarded One [1] mark** and for each **wrong answer Onefourth [1/4] mark shall be deducted**. Only those who are screened in after the Screening test [Stage –I] and qualify the Skill Test [Stage-II] will be allowed to appear in the Final Test [Stage III]. The minimum passing marks in Final test will be [UR:30%; EWS:27%; OBC:27%; SC;20%; ST:20%; PwD:15%].

The final merit list shall be drawn on the basis of the stage-III written test.

SYLLABUS FOR SKILL TEST AND FINAL WRITTEN TEST IS AS PER ANNEXURE-IV.

Departmentof Information Technology

Syllabus for Skill test (Senior Technician)

Hardware

Assembling of PC , Installation of Systems and troubleshooting, BIOS settings, Installation and testing of a printer , Printer Maintenance , Scanner Installation , Webcam Installation, Making various types of cables for networking, Installation and Maintenance of UPS Systems , Installation and maintenance of various networking devices like Router, Switches, Laying out Structured cabling, Installation of Firewalls and Connectivity of LAN & WAN, Installation of Wireless network devices.

Software

Debugging   C/ C++/ Python Programs, Installation and Administration of Oracle & SQL, Installation of various variants of operating systems like Windows and Linux, Installation of Software like Visual Studio, UML, Cisco Packet tracer, Working of MS-Office components like Word, Excel & PowerPoint, Configuring and sharing internet in PCs and other devices, Configuring firewalls &Usage of access lists, Working with Wireless Networks (Installation & Configuration), Designing webpages using HTML, CSS, Java Script, Designing and maintain Static and Dynamic Websites

Syllabusfor Final writtentest(SeniorTechnician)

Hardware

Hardware Devices and Troubleshooting • Components, tools and safety measures • Assembling a PC • Firmware upgrade, Dual BIOS & BIOS settings • Diagnose & Resolve issues related to a PC • Laptop features, Components, tools and safety measures • Diagnose & Resolve issues related to a Laptop • Upgrading a PC or Laptop • Smartphone features and Tools & Safety • Types of printers • Installing and testing a printer • Printer Maintenance • Scanner Installation • Webcam Installation.

Programming and Data Structure

C Language • Object oriented Programming •functions • data type • Recursion •Arrays •Stacks • Queues • Binary Search Trees • Sorting.

Web Designing

HTML and CSS • SQL • JavaScript

Operating system

Application & Troubleshooting • Different OS and Compatibility • Windows and Linux installation • Upgrading OS • Software Installation • Working on MS Word, Excel & PowerPoint • MS Office troubleshooting • Different Browser setup • Backup, format & restore OS.

Networking and Security

Basics of computer network • OSI Model • Transmission Media • Networking devices Network Topology • LAN Basics • IP Addressing • TCP/IP • Ethernet Advanced • Structured Cabling • Wireless Networking• Connecting a PC/Laptop to Internet • Installing a printer and sharing it in network • Joining a workgroup/domain • File sharing and troubleshooting • Remote Access • Basics of Wi-Fi •Internet security

DBMS

DDl, DML, ER-Model & normalization, relational data model, transaction processing concepts, Crash recovery, Oracle, Ms-Access, My SQL, Concurrency Control techniques Client- Server Concepts

Network Vulnerabilities

TCP/IP layer threats, UDP threats, ICMP, threat, ARP threat, DDOS/DOS, Firewall & its architectures, Packet filtering firewall, proxy firewall, IDS, Malware & types, virus, worms, use of access lists