

पाठ्यक्रम

छत्तीसगढ़ उच्च न्यायालय, बिलासपुर के अंतर्गत
हार्डवेयर इंजीनियर

कुल अंक –150

Section I: -

50 Marks

➤ **Details of Section I**

1. Analytical Reasoning Skills , Quantitative Skills Arithmetic, Elementary Algebra, Commonly known concepts of Geometry-(25 marks)
2. Verbal Skills Reading Comprehension, Sentence Correction, and Sentence Completions, English Language-(25 marks)

Section II:

100 Marks

➤ **Details of Section II**

Data Communication: Components, LAN/MAN/WAN, Topologies, Analog, Digital Communication, ISO-OSI Architecture, TCP/IP, Transmission impairments, Media – Guided and unguided, Encoding techniques, Modulation, Error detection and correction, ARQ techniques, Multiplexing, FDM-TDM-WDM, Wireless communication, Switching techniques, Polling.

Computer Networks: Data Link Layer – MAC Sublayer, CSMA, CSMA/CD, Ethernet, IEEE Standards, LLC, ATM, Network layer – Routing algorithms, Congestion control algorithms, IPV4 and IPV6, Subnetting, Transport Layer – Services, Service primitives, Addressing, Application Layer – DNS, E-mail architecture, SMTP, POP3, MIME, Network Management Devices – Repeater, Hub, Switch, Router, Gateway, Wireless access point, UDP, HTTP, FTP, TELNET, VOIP

Information Security: Computer Security, CIA triad, OSI Security Architecture, X.800, Cryptography, Symmetric and asymmetric encryption, MAC, Hash function, Digital signature, User authentication – Token based, Biometric, Remote user authentication, Intrusion Detection Systems, Honey pots, Denial of Service, Firewall

Mobile Computing: Cellular systems, SDMA, FDMA, TDMA, CDMA, GSM, GEO, MEO, LEO, WLAN protocols, Bluetooth, WAP, VPN

Digital Logic: Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).

Computer Organization and Architecture: Machine instructions and addressing modes. ALU, data- path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).

Compiler Design: Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.

Operating System: Processes, threads, inter- process communication, concurrency and synchronization. Deadlock. CPU scheduling. Memory management and virtual memory. File systems. UNIX, Linux, Windows XP.

4.11.2018

SYLLABUS FOR SKILL TEST FOR THE POST OF HARDWARE ENGINEER

Hardware Engineer	Networking including knowledge of OFC connections SAN Storage and Clustering, Hardware Maintenance test, Server Installation Administration (Web Server, File Server and Database Server) (Total marks for Skill Test : 50 marks)
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The unreserved candidates shall have to secure minimum 50% marks and SC, ST & OBC category candidates shall have to secure minimum 40% marks for qualifying the respective Skill Test mentioned above.

The select lists for the posts will be prepared on the basis of total marks obtained by the candidates in the respective Written, Skill Tests & Interview


4-11-2018