

Certificate Course in Computer Hardware & Networking

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4 Weeks Online Course

Objective

This course is to make the student understand working of computer hardware & networking devices, troubleshooting & maintenance. After completion of this course the student is expected to configure the computer system as per the user requirement and troubleshoot functional problem in computer operation. The main emphasis of the course will be on problem solving aspect i.e. Installation, Configuration & Maintenance.

10/10+2/ITI/Diploma/Graduate.

Eligibility

Duration

04 Weeks (2 Hrs. per day)

Prerequisites

- ✓ Candidate must have latest computer/laptop with preferably 4 GB RAM or higher and Graphics Card (2 GB)
- ✓ Software: Windows/UBUNTU etc
- ✓ Internet connection with good speed (*preferably 2Mbps or higher*)

Certificate

Participation Certificate will be provided to the participants, based on minimum 75% attendance and on performance (minimum 50% marks) in the online test, conducted at the end of the course.

Course Fees

Rs. 1400/- incl. GST& all other charges.

How to Apply?

- ✓ **Step-1:** Read the course structure & course requirements carefully.
- ✓ **Step-2:** Visit the Registration portal and click on apply button.
- ✓ **Step-3:** Create your login credentials and fill up all the details, see the preview and submit the form.
- ✓ **Step-4:** Login with your credentials to verify the mobile number, email ID and then upload the documents, Lock the profile and Pay the Fees online, using ATM-Debit Card / Credit Card / Internet Banking / UPI etc.

Course Content

Day	Topic	Day	Topic	Day	Topic
Day #01	Introduction to Basic electricity, Number Systems & digital electronics.	Day #02	Half-wave & Full-wave Rectifier with filter, Switched Mode Power supply block diagram, working principles, testing and troubleshooting, power rating, requirement of SMPS wattage depending parameters like processor, HDDs used, etc.	Day #03	The PC h/w consisting input, processing and output sections and basic building components. Introduction to computer h/w component of motherboard, CPU, chip-set, various ports, slots, connectors, add-on cards, etc., Protection of PC h/w, anti-static wrist band, protection and safety devices.
Day #04	Typical Motherboard BIOS/ UEFI, BIOS/UEFI Features, BIOS & Boot Sequences, BIOS Shortcoming & Compatible Issues, BIOS Troubleshooting, BIOS Upgrades, POST, Error & Beep Code, Post & Post Reader Card, Configure CMOS, BIOS setup, Examining various error codes & their causes.	Day #05	Installation of multiple hard disk, Partitioning, Installation of hard disk in master and slave mode, HDD Interfaces like IDE, SATA, SCSI, SAS, Introduction to HDD controller like SCSI controller & RAID controllers requirement & configuration.	Day #06	Computer organization, Introduction to OS, different types of OS (DOS, UNIX, LINUX, Windows10, MacOS, Android etc.)
Day #07	Introduction, Evolution & architecture of Microprocessor	Day #08	Types of Memory, RAM, ROM, Static, Dynamic, SIMM, DIMM, DDR, Cache memory, Virtual Memory etc.	Day #09	Introduction to File Systems FAT/NTFS, difference b/w FAT/NTFS, file & memory management in FAT/NTFS, data deletion and data recovery concepts, formatting
Day #10	Various input Devices and their applications Mouse, Keyboard, Scanners: Flatbed scanner, Microphone, Webcam, OCR, Smart card reader, RFID reader, Touch screen, Audio Input device, MIDI	Day #11	Types of Output Devices: text, graphics, audio, video, Visual Display Units, electronic paper, Classification of printers: Printer Technology, How Printer Works, Common Printer Problems & Solution	Day #12	Types of display, Liquid Crystal Display, How LCD display works, Cold cathode fluorescent lamp (CCFL), Comparison of displays, LCD panels, TFT-LCD, layers of TFT screen, CCFL inverter, CCFL for TFT LCD backlighting CCFL lamp TFT-LCD VGA connector Different b/w LCD & TFT
Day #13	Types of software, Application Software, System Software and device drivers, Introduction to Virtualization software.	Day #14	Upgrading previous version of Windows/Linux or Windows/Linux operating system fresh installation with HDD partitioning, working with files and folders, working with different explorers, study of control panel and its settings, System administration, Authentication	Day #15	What is networking, Basic types of networks, server client & peer to peer, Types of topologies, Types of Networks, LAN, MAN and WAN, PAN, SAN, NAS, OSI & TCP/IP Model and layers.
Day #16	Transmission mediums (wired, radio frequency, electromagnetic waves), types of cables, Modems, Hubs, switches, routers, Wireless Routers, IP configuration & working with various protocols, Network management, file sharing.	Day #17	Data Transmission Mode, Digital & Analog Data Transmission, circuit & packet switching, Introduction to Communication Protocols (TCP, UDP, ICMP, DHCP, HTTP, POP, FTP, IMAP etc.), data packets structure	Day #18	Computer virus, types of viruses, worms, malware, adware, spyware, virus signatures, how antivirus works, concept behind Virus prevention and removing, various Antivirus programs & installation, difference b/w virus removal & quarantine.
Day #19	System Image backup, backup and restore, backup devices - magnetic tape drives, USB Pen-drives, External HDDs, CDROM, CDRW, DVD, Blue-Ray Discs, etc.	Day #20	Troubleshooting & General PC Problems, General Troubleshooting rules, Preventive Maintenance		

Contact Details

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