CHM-O level
H6: Devices and Applications

80 Hours

Course Prerequisites:
Basic knowledge of computer and its Devices.

Learning outcome of the Course
1. Students will be able to Identify existing configuration of the computer and peripherals and also to troubleshoot and repair common problems with these devices of computers
2. Students will be able to understand the applications of devices.

Course details

Section	Brief Contents	Duration
Input Devices and Applications	Mouse, Keyboard, Scanners: Flatbed scanner, Fingerprint scanner, Retina scanner, Iris scanner, Micro Phone, Webcam, Digital Camera, Bio-Metric system, Bar code reader ,Optical mark reader, Optical character reader, Magnetic strip reader, Smart card reader, RFID reader, Touch screen, Audio Input device, MIDI(musical instrument digital interface.OMR Software	8
Display devices classification and its use	Types of display, Liquid Crystal Display, Models of LCD Display, How LCD display works, Cold cathode fluorescent lamp (CCFL), display layers ,Components of LCD module, Comparison of display, Manufacturers, LCD panels, TFT-LCD, layers of TFT screen, CCFL inverter, CCFL for TFT LCD backlighting CCFL lamp TFT-LCD VGA connector Different between LCD & TFT	6
Output Devices and Applications	Types of Output Devices: text, graphics and audio and video, Visual Display Unites, Sound output Electronic paper, Classification of printers: Impact Printer Inkjet Printer Laser printer, Thermal printer, Personal printer, shared printer, portable plotter printer, Photo Printer, Dot-Metrics Printer, Audio output devices: speakers and Head phones Multimedia Systems. Other Devices Fax machine, Projectors, Jammers. Introduction to 3D printers and Applications	8
Secondary Storage Device media and Applications	Magnetic media Hard disk Magnetic Tape drive CD-ROM CD-R CD-RW Solid-state memory USB(memory stick) Flash Drive Memory cards, digital video camera, CCTV.	8
Trouble Shooting related to device and its use	I/O Devices ,Display Devices, Storage Devices, Power Device	10
Practical's	Practical-1. Identification of Components(input/output)	4
	Practical-2. Identification of Ports	4

Section	Brief Contents	Duration
	Practical-3. Functions of each devices	4
	Practical-4. Installation of Input Devices (mouse, keyboard, scanner micro phone, webcam, Digital camera etc....)	4
	Practical-5. Installation and use of display devices(CRT, LCD, LED)	4
	Practical-6. Installation of Output Devices(printers speakers, multimedia devices	4
	Practical-7. Working structures of 3D printers	4
	Practical-8. Troubleshooting on devices(input/output)	3
	Practical-9. Installation and use of projectors	3
	Practical-10. Working status of FAX machines	3
	Practical-11. Test of knowledge on storage devices(Hard disk , DVD, CD, Memory cards)	3