

Subject Code : 2CS1010205	Subject Title: Workshop-II (Configuration of Computer Hardware, Peripherals & Networking Devices)
Pre-requisite :	-

Course Objective:

This course aims to make the students familiar with configuration and installation of hardware components and computer system parts. Students are expected to learn various basic concepts of internet connectivity, CCTV camera, router, switch, network cable, etc.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
-	-	4	2	-	-	60	40	100

Subject Contents				
Sr. No	Topics	Total Hours	Weight (%)	
1	Computer Configuration: Run CMOS setup utility and configure computer system	9	20	
2	Operating System Fundamentals: To identify the basic feature of different types of Operating Systems including Linux	9	20	
3	Operating System Installation: Selection of the operating system regarding configuration of computer, installation of various operating systems	9	15	
4	Troubleshooting and Preventive Maintenance. Identify the proper area of error / trouble / Fault. Identify the software / Hardware error. Software Errors: Installation Problem, Booting Problem. Device Driver Problem, File Corruption. Virus Problem, Memory Problem. Hardware Errors: Power Problem, Short-Circuit. Fusing / Burning Problem, Display Problem. Memory Problem, CMOS problem.	9	20	
5	UTM/Firewall: Load Balance, Bandwidth Management, Application Filter, Web based filter, Routing Various Connectivity: Radio link, Fiber link, Leased line. Fiber optic cabling. Introduction to structured cabling. CCTV: Requirement analysis, Cabling, Installation CCTV camera, Install Managing CCTV network through PC/PDA. Peripheral Installation and maintenance: Printer, Scanner, CD Drive	12	25	

Course outcomes:

After completion of this course student would be able:

- To install different Operating Systems and different device drivers.
- To troubleshoot and repair various Operating Systems.
- To install drivers and software of Web Camera and CCTV Camera.
- To Install and Troubleshooting of Printer (Dot-Matrix and Laser Printer)
- To Install and Troubleshooting of Scanner (Photo & Bar Code Scanner)

List of reference:-

1. Computer today -By Donald, Mc Graw Hill publication.
2. Servicing personal computers- By Michael H Tooley.
3. PC AND CLONES Hardware, Troubleshooting and Maintenance B. Govinda rajalu, Tata McGraw- Hill Publication
4. PC Troubleshooting and Repair Stephen J. Bigelow , Dream tech Press, New Delhi

List of Experiments:

Note: The experiment list provided beneath is for reference only. The course teacher may change/formulate it as per his/her methodology and requirement.

1. Format the hard disk, create partition on the hard disk and install the operating system in hard disk.
2. Configure and install the drivers of motherboard.
3. Configure and install the driver of input and output devices.
4. Configure and install the driver of network devices.
5. To solve the software error problem.
6. To solve the hardware error problem.
7. Installation of Different Operating Systems like Windows XP, Windows 7, linux.
8. Tacking Data Backup and System Formatting and OS Installation
9. Installation of Drivers and Software of Web Camera and CCTV Camera
10. Installation of Application Software like Photoshop 7.0, Page Maker 6.5
11. Installation of CD-DVD Burning Software like Nero 7.0 & PowerISO 4.0
12. Installation and Troubleshooting of Different types of Antivirus Software
13. Installation Dual Operating System like: Windows XP and Windows 7
14. Installation and Troubleshooting of Printer (Dot-Matrix and Laser Printer)
15. Installation and Troubleshooting of Scanner (Photo & Bar Code Scanner)
16. To Repair and Troubleshooting of SMPS, Monitor, Printer and Motherboard
17. To Install All Types of Connectors and Converters