C.V. RAMAN POLYTECHNIC BBSR

LESSON PLAN

Discipline: Diploma Branch: CSE	Semester: 5th	Name of the Teaching Faculty: Jagadish Mahanta
Subject: Computer Hardware & Maintenance (Th-4)	No. of Days/per week class allotted: 60days/ 4 class per week	Semester From Date: 14/07/2025 To Date: 15-11-25 No. of Weeks:15

Week	Class Day	Theory
1st	1st	Introduction about computer Centre and management
	2nd	Discussion about manpower engaged in computer center
	3rd	Need of Management in Computer Centre
	4th	Types of Jobs carried out in computers in an organization
2nd	1st	Duties and responsibilities of personnel involved
	2nd	Need of Training of Staff
	3rd	Idea about Various makes of Computers
	4th	Introduction about site preparation and how to select a suitable site
3rd	1st	Layouts of computer Centre
	2nd	Need of False Roofing in computer center
	3rd	Need of Air Conditioning in computer Centre
	4th	Need of Dust Proofing in computer Centre
4th	1st	Brief discussion about Power Conditioning equipment
	2nd	CVT and its principle of functioning
	3rd	UPS and its principle of functioning
	4th	Isolation Circuits and its principle of functioning
5th	1st	Components and slots - Processor socket, memory sockets
	2nd	Components and slots - Chip sets, Key Board/Mouse Connectors
	3rd	Components and slots - Jumpers, Pin Connectors
	4th	Mother architecture
6th	1st	Mother Block Diagram
	2nd	Processors - Core2 Duo Processor, Quad Core Processor
	3rd	Processors - Core i3,i5,i7
	4th	Processors - AMD A10 series, Xeon Processor
7th	1st	Chip Sets in motherboard
	2nd	Bus Standards: PCI (Peripheral Components Interconnect)
	3rd	Bus Standards: AGP (Accelerated Graphic Port),
	4th	Color Codes for Devices/ports

8th	1st	Brief discussion about various memory used in computer	
	2nd	Primary Memory	
	3rd	Secondary Memory	
	4th	Memory Speed and Access time	
9th	1st	Hard Disk and its working principles	
	2nd	Formatting and partition of HDD	
	3rd	Removal storage devices – CD, DVD, External Drives	
	4th	Removal storage devices – Memory Stick, Flash Drive, SSD (Solid State Drive)	
10th	1st	Keyboard - Interfacing, USB, Wireless, Types of keys, Keyboard Matrix, Key Bouncing	
	2nd	Mouse – Interfacing, USB, Wireless	
	3rd	Printer – Types, operation and Trouble shooting	
	4th	Scanner – Types, operation and Trouble shooting	
11th	1st	Displays and Graphics Cards	
	2nd	LCD, PLASMA, TFT, LED Displays	
	3rd	SMPS (Basic Principles & operations, O/P voltage)	
	4th	BIOS(Functions, setups, types of BIOS)	
12th	1st	POST(Operation, Faults related to Hardware)	
	2nd	Assembly of Components of Desktop Computers	
	3rd	Configuring Laptops and Power settings	
	4th	Laptop Components(Adapter , Battery, Basic problems, RAM types, CPU types, Laptop Motherboard, block diagram, Laptop Keyboard	
13th	1st	Formatting , Partitioning and installation of OS	
	2nd	Trouble shooting of Common ly faced problems in Desktops and Laptops	
	3rd	Basic Maintenance concepts(Preventive, Corrective, online)	
	4th	Diagnostic programs and tools	
14th	1st	Methods of Trouble shooting(symptom observation, analysis, diagnosis, Correction)	
	2nd	Up gradation of system and application software	
	3rd	Virus concepts, Antivirus	
	4th	Network Interface card	
15th	1st	Networking interconnecting devices such as hub, switch, Router	
	2nd	Types of Network cable – Twisted Pair and Co-axial	
	3rd	Types of Network cable – optical fiber cable	
	4th	Types of Network connector	

Signature of Faculty

Signature of HOD (CSE)