

# C.V. RAMAN POLYTECHNIC BBSR



## LESSON PLAN

<b>Discipline: Diploma</b> <b>Branch: CSE</b>	<b>Semester: 5<sup>th</sup></b>	<b>Name of the Teaching Faculty: Ipsita Ankita Hota</b>
<b>Subject: Computer Hardware &amp; Maintenance (Th-4)</b>	<b>No. of Days/per week class allotted: 60days/ 4 class per week</b>	<b>Semester From Date: 14/07/2025 To Date: 15/11/2025</b> <b>No. of Weeks: 15</b>
<b>Week</b>	<b>Class Day</b>	<b>Theory</b>
1 <sup>st</sup>	1 <sup>st</sup>	Introduction about computer Centre and management
	2 <sup>nd</sup>	Discussion about manpower engaged in computer center
	3 <sup>rd</sup>	Need of Management in Computer Centre
	4 <sup>th</sup>	Types of Jobs carried out in computers in an organization
2 <sup>nd</sup>	1 <sup>st</sup>	Duties and responsibilities of personnel involved
	2 <sup>nd</sup>	Need of Training of Staff
	3 <sup>rd</sup>	Idea about Various makes of Computers
	4 <sup>th</sup>	Introduction about site preparation and how to select a suitable site
3 <sup>rd</sup>	1 <sup>st</sup>	Layouts of computer Centre
	2 <sup>nd</sup>	Need of False Roofing in computer center
	3 <sup>rd</sup>	Need of Air Conditioning in computer Centre
	4 <sup>th</sup>	Need of Dust Proofing in computer Centre
4 <sup>th</sup>	1 <sup>st</sup>	Brief discussion about Power Conditioning equipment
	2 <sup>nd</sup>	CVT and its principle of functioning
	3 <sup>rd</sup>	UPS and its principle of functioning
	4 <sup>th</sup>	Isolation Circuits and its principle of functioning
5 <sup>th</sup>	1 <sup>st</sup>	Components and slots - Processor socket, memory sockets
	2 <sup>nd</sup>	Components and slots - Chip sets, Key Board/Mouse Connectors
	3 <sup>rd</sup>	Components and slots - Jumpers, Pin Connectors
	4 <sup>th</sup>	Mother architecture
6 <sup>th</sup>	1 <sup>st</sup>	Mother Block Diagram
	2 <sup>nd</sup>	Processors - Core2 Duo Processor, Quad Core Processor
	3 <sup>rd</sup>	Processors - Core i3,i5,i7
	4 <sup>th</sup>	Processors - AMD A10 series, Xeon Processor
7 <sup>th</sup>	1 <sup>st</sup>	Chip Sets in motherboard
	2 <sup>nd</sup>	Bus Standards: PCI (Peripheral Components Interconnect)
	3 <sup>rd</sup>	Bus Standards: AGP (Accelerated Graphic Port),
	4 <sup>th</sup>	Color Codes for Devices/ports

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

*Ipzita Ankita Hota*  
Signature of Faculty

  
Signature of HOD (CSE)