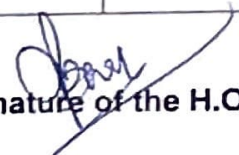


LESSON PLAN

Name of the Institute:		C. V. RAMAN POLYTECHNIC
Department:		CSE
Semester/Division/Branch:		5TH SEM, CSE
Subject Name with code:		COMPUTER HARDWARE & MAINTENANCE (TH-4)
Total No. of Class (Required):		60
Faculty Name:		Manas Ranjan Mishra
Class No.	Brief description of the Topic/Chapter to be taught	Remarks
UNIT-1		
1	Introduction about computer centre and management	
2	Discussion about manpower engaged in computer center	
3	Need of Management in Computer Centre	
4	Types of Jobs carried out in computers in an organization	
5	Duties and responsibilities of personnel involved	
6	Need of Training of Staff	
7	Idea about Various makes of Computers	
UNIT-2		
8	Introduction about site preparation and how to select a suitable site	
9	Layouts of computer centre	
10	Need of False Roofing in computer centre	
11	Need of Air Conditioning in computer centre	
12	Need of Dust Proofing in computer centre	
13	Brief discussion about Power Conditioning equipment	
14	CVT and its principle of functioning	
15	UPS and its principle of functioning	
16	Isolation Circuits and its principle of functioning	
UNIT-3		
17	Components and slots - Processor socket, memory sockets	
18	Components and slots - Chip sets, Key Board/Mouse Connectors	
19	Components and slots - Jumpers, Pin Connectors	
20	Mother architecture	
21	Mother Block Diagram	
22	Processors - Core2 Duo Processor, Quad Core Processor	
23	Processors - Core i3,i5,i7	
24	Processors - AMD A10 series, Xeon Processor	
25	Chip Sets in motherboard	
26	Bus Standards: PCI (Peripheral Components Interconnect)	
27	Bus Standards: AGP (Accelerated Graphic Port),	
28	Colour Codes for Devices/ports	
UNIT-4		
29	Brief discussion about various memory used in computer	
30	Primary Memory	
31	Secondary Memory	
32	Memory Speed and Access time	
33	Hard Disk and its working principles	
34	Formatting and partition of HDD	

35	Removal storage devices – CD, DVD, External Drives	
36	Removal storage devices – Memory Stick, Flash Drive, SSD (Solid State Drive)	
37	Keyboard - Interfacing, USB, Wireless, Types of keys, Keyboard Matrix, Key Bouncing	
38	Mouse – Interfacing, USB, Wireless	
39	Printer – Types, operation and Trouble shooting	
40	Scanner – Types, operation and Trouble shooting	
UNIT-5		
41	Displays and Graphics Cards	
42	LCD, PLASMA, TFT, LED Displays	
43	SMPS (Basic Principles & operations, O/P voltage)	
44	BIOS(Functions, setups, types of BIOS)	
45	POST(Operation, Faults related to Hardware)	
UNIT-6		
46	Assembly of Components of Desktop Computers	
47	Configuring Laptops and Power settings	
48	Laptop Components(Adapter , Battery, Basic problems, RAM types, CPU types, Laptop Motherboard, block diagram, Laptop Keyboard	
49	Formatting , Partitioning and installation of OS	
50	Trouble shooting of Common ly faced problems in Desktops and Laptops	
51	Basic Maintenance concepts(Preventive, Corrective, online)	
52	Diagnostic programs and tools	
53	Methods of Trouble shooting(symptom observation, analysis, diagnosis, Correction)	
54	Up gradation of system and application software	
55	Virus concepts, Antivirus	
UNIT-7		
56	Network Interface card	
57	Networking interconnecting devices such as hub, switch, Router	
58	Types of Network cable – Twisted Pair and Co-axial	
59	Types of Network cable – optical fibre cable	
60	Types of Network connector	


Signature of the Faculty


Signature of the H.O.D