

**Govt. Polytechnic Sundernagar (H.P.)**

**Lesson Plan Theory**

**Branch: Computer Engineering**

**Semester : 5th Semester Computer Engg.(Diploma)**

**Subject : Computer Hardware & Peripherals**

**Session :2022-23(Sept-Dec,2022)**

**Teacher : Sudhir Sen**

**Laboratory : Computer Hardware Lab.**

Chapter	Month	Week	Date	Chapter Description	Detail of Contents	Remarks
1	September	1st	1,2	<b>Computer Hardware Devices</b>	PC components, features and system design, processor types and their features	
		2nd	5,8,9		processor specification, overview of motherboards	
		3rd	12,16,17		Bus system –data I/O bus, address bus	
		4th	19,23,27		Internal Data bus, comparing processor performance, BIOS, BIOS setup menus,	
		5th	26,29,30		Limitation of BIOS, UEFI, overview of Mobile devices hardware.	
2	October	2nd	3,10	<b>Input/ Output Devices and Ports</b>	Objective of I/O Devices, Types of input devices, Different printing devices and their use, Display types–CRT Monitor, LCD, LED, Plasma, OLED, HDTV, data projector	
		3rd	10,13,14		Video connector types –VGA, DVI, HDMI, S-Video, Characteristics of display devices–Resolution refresh rate, response time, color quality, USB port.	
3	October	4th	17,20,21	<b>Memory</b>	Memory basics –ROM, RAM, Types of RAM, Differentiate between DDR and GDDR, Memory Module –Registered	
		5th	27,28		Modules, SDR DIMM, DDR DIMM, DDR2 DIMM, DDR3 DIMM, DDR4 DIMM, Concept of cache –internal cache, External Cache (L1, L2, L3 cache)	
4	November	1st	3,4	<b>Storage Devices</b>	Type of storage devices, benefits and features of storage devices, Principle and operation of HDD, Basic HDD components, HDD cables and connectors	
			7,10,11		Optical Storage –CD/DVD construction technology, DVD format and standards, Concept of HD-DVD, Optical drive performance specifications –data transfer rate, drive speed, access time; Flash and removable devices –USB flash drive, SSD	
			15,17,18		Flash card readers; Concept of cloud based storage.	
5			21,24,25	<b>Power Supply</b>	Power supply rating, form factors, power supply connectors, Block diagram and working of SMPS	
			28		UPS –online and offline UPS, UPS Rating, comparison of UPS and inverter.	
6	December	1st	1,2	<b>Networking Devices</b>	Different types of networking devices –NIC, Repeaters, Switch, Hub, router, gateways, bridge, modem, Access point, Bluetooth,	
		2nd	5,8,9		Firewall; Internet connectivity technologies –Dial-up, ISDN, broadband, Wi-Max	
		3rd	12,15,16		Leased line, Networking cables and their comparison, Networking tools.	
		4th	19		<b>Session Closed on 20.12.2022</b>	

Signature of Teacher

Signature of H.O.D.