SYNERGY SCHOOL OF ENGINEERING, DHENKANAL

LESSON PLAN

Sessions: 2025-26

Discipline: Computer Science And Engineering	Semester:5th Winter/2025	Name of the Faculty: Asmita Pranayani
Subject: Computer Hardware and Maintenance,Theory-04	No. Of Days/Week:04	Start Date: 14/07/25 End Date: 15/11/25

Week	Class Day	Theory Topics
1st	1st	**Unit-1:ComputerCentreManagement** Need of Management in Computer Centre
	2nd	Types of Jobs carried out in computers in an organization Duties and responsibilities of personnel involved
	3rd	Types of Jobs carried out in computers in an organization Duties and responsibilities of personnel involved
	4th	Need of Training of Staff Idea about Various makes of Computers.
2nd	1st	**Unit-2:SitePreparation&Installation** Layouts of computer center
	2nd	False Roofing ,Air Conditioning ,Dust Proofing
	3rd	Power Conditioning equipment like CVT,UPS, Isolation Circuits with Principles of functioning
	4th	Power Conditioning equipment like CVT,UPS, Isolation Circuits with Principles of functioning
3rd	1st	**Unit-3:MotherBoardandComponents** Components and slots(Processor socket/slot, memory sockets, Chip sets, Cache Memory
	2nd	BIOS, Clock Generator, RTC,I/O Controller, power Connector, Keyboard/Mouse Connectors, Jumpers, Pin Connectors etc.)
	3rd	Components and slots
	4th	Components and slots
4th	1st	Mother architecture and Block Diagram
	2nd	Processors (Core2 Duo Processor, Quad Core Processor,Corei3,i5,i7series,AMDA10series, Xeon Processor)
	3rd	Processors (Core2 Duo Processor, Quad Core Processor,Corei3,i5,i7series,AMDA10series, Xeon Processor)
	4th	Processors (Core2 Duo Processor, Quad Core Processor,Corei3,i5,i7series,AMDA10series, Xeon Processor)
5th	1st	Chip Sets

	2nd	Chip Sets
	3rd	Bus Standards: PCI, AGP, USB etc.
	4th	Bus Standards: PCI, AGP, USB etc.
6th	1st	Color Codes for Devices/ports
	2nd	**Monthly Test-01**
	3rd	**Unit-4;Memory And I/O Devices** Primary and secondary Memory
	4th	Primary and secondary Memory
7th	1st	Memory speed, Access time
	2nd	Hard Disk, Construction, Working Principles
	3rd	Hard Disk, Construction, Working Principles
	4th	File System, Formatting, Partitioning
8th	1st	Removable Storage and Special devices and their working principles(CD,DVD, External drives, Memory stick, USB flash drive, Solid state drive)
	2nd	Removable Storage and Special devices and their working principles(CD, DVD, External drives, Memory stick, USB Flash drive, Solid state drive)
	3rd	Removable Storage and Special devices and their working principles(CD, DVD, External drives, Memory stick, USB Flash drive, Solid state drive)
	4th	Keyboard(Inter facing, USB, Wireless, Types of keys, Keyboard Matrix, Key Bouncing) Mouse Interfacing
9th	1st	Printers(Types, operation and Trouble shooting)
		Printers(Types, operation ,and Trouble shooting)
	2nd	Scanners(Types, operation and Trouble Shooting)
		Unit-5:Display,PowerSupplyandBios Displays and Graphics Cards
	3rd	LCD, PLASMA, TFT, LED Displays
	4th	SMPS(Basic Principles and operations, O/P voltage)
10th	1st	BIOS(Functions ,setups, types of BIOS)
	2nd	POST(Operation, Faults related to Hardware)
	3rd	**Unit-6:MaintenanceandTroubleShooting** Assembly of Components of Desktop Computers
	4th	Configuring Laptops and Power settings
11th	1st	Laptop Components (Adapter, Battery, Basic problems, RAM types, CPU types, Laptop Motherboard, block diagram, Laptop Keyboard)
	2nd	Laptop Components
	3rd	Formatting, Partitioning and installation of OS
	4th	Trouble shooting of Commonly faced problems in Desktops And Laptops

12th	1st	Basic Maintenance concepts(Preventive, Corrective, online) Diagnostic programs and tools
	2nd	Methods of Trouble shooting (symptom observation, analysis, diagnosis, Correction)
	3rd	Up gradation of system and application software Virus concepts, Antivirus
	4th	**Unit-7:Networking Devices and Their Interfaces** Network Interface card Networking interconnecting devices such as hub, switch, Router
13th	1st	Networking interconnecting devices such as hub, switch, Router
	2nd	Types of Network cable
	3rd	Types of Network connector
	4th	**Quiz Test**
14th	1st	**Revision and Doubt Clear**
	2nd	**Monthly Test-02**
	3rd	**Revision and Doubt Clear**
	4th	**Revision and Doubt Clear**
15th	1st	**Discussion of Question Answer**
	2nd	**Discussion of Question Answer**
	3rd	**Discussion of Question Answer**
	4th	**Discussion of Question Answer**

Asmita Pranayani

Prepared By: 11/07/25

Verified By: 11/07/25

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