**LESSON PLAN**

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| **Discipline:**  Comp.Sc. & Engg**.** | | **Semester:**  Fifth (5th) | **Name of the Faculty:**  Deepak Kumar Nayak |
| **Subject:**  Computer Hardware and Maintenance | | **No. of days/week class allotted:**  **Five (5)** | **Semester from Date:** 01.07.24 **to Date:08** .11.24  **No. of Weeks: 15** |
| **WEEK** | | **CLASS DAY** | **THEORY TOPICS** |
| 1st | | 1st | **Computer Centre Management**  Need of Management in Computer Centre. |
| 2nd | Types of Jobs carried out in computers in an organization |
| 3rd | Duties and responsibilities of personnel involved. |
| 4th | Need of Training of Staff. |
| 5th | Idea about Various makes of Computers. |
| 2nd | | 1st | Review Class |
| 2nd | **Site Preparation & Installation**  Layouts of computer center |
| 3rd | False Roofing, Air Conditioning |
| 4th | , Dust Proofing. |
| 5th | Power Conditioning equipment’s like CVT |
| 3rd | | 1st | UPS, |
| 2nd | Isolation Circuits with Principles of functioning. |
| 3rd | Review Class |
| 4th | **Monthly Test-01** |
| 5th | **Mother Board and Components**  Components and slots (Processor socket/slot, memory sockets, Chip sets |
|  | | 1st | , Cache, BIOS, Clock Generator, etc.) |
| 4th | | 2nd | RTC, I/O Controller, power Connector, Key Board/Mouse Connectors, Jumpers, Pin Connectors, |
| 3rd | Mother architecture and Block Diagram. |
| 4th | Processors (Core2 Duo Processor, Quad Core Processor,) |
| 5th | Core i3, i5, i7 series, AMD A10 series, Xeon Processor |
| 5th | | 1st | Chip Sets |
| 2nd | Bus Standards: PCI, AGP, USB etc. |
| 3rd | Color Codes for Devices/ports. |
| 4th | Review Class |
| 5th | **Memory And I/O Devices** Primary and Secondary Memory |
| 6th | | 1st | Memory Speed, Access Time |
| 2nd | Hard Disk, Construction, Working Principles |
| 3rd | File System, Formatting, Partitioning |
| 4th | **Monthly Test-02** |
| 5th | Removable Storage and Special Devices and |
| 7th | 1st | | their working principles (CD, DVD, External Drives, Memory Stick,) |
| 2nd | | USB Flash Drive, Solid State Drive |
| 3rd | | Key Board (Interfacing, USB, Wireless, Types of Keys, Keyboard Matrix, Key Bouncing) |
| 4th | | Mouse Interfacing |
|  | 5th | | Printers (Types, Operation and |
| 8th | 1st | | Troubleshooting) |
| 2nd | | Scanners (Types, Operation and Trouble Shooting) |
| 3rd | | Review Class |
| 4th | | **Display, Power Supply and Bios**  Displays and Graphics Cards |
| 5th | | LCD, PLASMA, |
| 9th | 1st | | TFT, LED Displays |
| 2nd | | SMPS (Basic Principles and operations, O/P voltage) |
| 3rd | | BIOS (Functions, setups, types of BIOS) |
|  | 4th | | **Monthly Test-03** |
| 5th | | POST (Operation, Faults related to Hardware) |
| 10th | 1st | | Review Class |
| 2nd | | Maintenance and Trouble Shooting |
| 3rd | | Assembly of Components of Desktop Computers |
| 4th | | Configuring Laptops and Power settings |
| 5th | | Laptop Components (Adapter, Battery, Basic problems, RAM types, CPU types |
| 11th | | 1st | , Laptop Motherboard, block diagram, Laptop Keyboard) |
| 2nd | Formatting, Partitioning and installation of OS |
| 3rd | Trouble shooting of Commonly faced problems in Desktops |
| 4th | **Monthly Test-04** |
| 5th | Trouble shooting of Commonly faced problems in Laptops |
| 12th | | 1st | Basic Maintenance concepts (Preventive) |
| 2nd | Basic Maintenance concepts (Corrective) |
| 3rd | Basic Maintenance concepts ( online) |
| 4th | Diagnostic programs and tools |
| 5th | Methods of Trouble shooting (symptom observation,) |
| 13th | | 1st | analysis, diagnosis, Correction |
| 2nd | Up gradation of system |
| 3rd | and application software |
| 4th | Virus concepts, Antivirus |
| 5th | Review Class |
| 14th | | 1st | **Networking Devices and Their Interfaces**  Network Interface card. |
| 2nd | Networking interconnecting devices such as hub |
| 3rd | Switch, Router. |
| 4th | Types of Network cable. |
| 5th | Types of Network cable |
| 15th | | 1st | Types of Network connector. |
| 2nd | Review Class |
| 3rd | Previous yr question answer discussion W 2021 |
| 4th | Previous yr question answer discussion W 2022 |
| 5th | Previous yr question answer discussion W 2023 |