**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 |