



Rajarshi Shahu Mahavidyalaya, Latur

(Autonomous)

Department of Information Technology

Course Type: SEC-I

Course Title: PC Assembly and Installation

Course Code: 101COA1601

Credits: 02

Max. Marks: 50

Lectures: 30 Hrs.

Learning Objectives:

- LO 1. To learn components of computer system
- LO 2. To familiarize with operating System and other Software
- LO 3. To develop technical understanding
- LO 4. To perform installation and maintenance
- LO 5. To understand the industry specifications, guidelines and safety measures during work

Course Outcomes:

After completion of course the student will be able to-

- CO 1. Identify components of computer system
- CO 2. Assess components of computer system with required specification
- CO 3. Perform installation and maintenance of computer peripherals
- CO 4. Comply with the safety procedures and standards to be followed

| Unit No. | Title of Unit & Contents | Hrs. |
|-----------|---|----------|
| I | Motherboard and BIOS | 8 |
| | <ul style="list-style-type: none">1. Computer Components2. Computer Tools3. Motherboard and its types (ATX, BTX)4. Types of data cables5. What is bus?6. System bus types7. Functions and features of bus8. Motherboard ROM BIOS, Upgrading BIOS9. Installing Motherboard | |
| | Unit Outcomes: UO 1. Explain basics of hardware components of computer UO 2. Perform installation of motherboard | |
| II | RAM and Connectors | 7 |
| | <ul style="list-style-type: none">1. RAM and its Types: DRAM, SDRAM, DDR, DDR2 and DDR32. Different types of I/O Ports available and their purpose3. Graphic cards and its function4. Internal Connectors: Power Supply Connectors, PCI, ISA, IDE, AGP, PCI Express, SATA, DIMM5. Installing RAM | |
| | Unit Outcomes: UO 1. Describe RAM and various I/O ports | |

| Unit No. | Title of Unit & Contents | Hrs. |
|------------|--|----------|
| | UO 2. Perform installation and maintenance of computer peripherals | |
| III | Hard Disk and SMPS | 7 |
| | 1. Hard Disk and its types 2. Hard Disk Partition 3. Ports, SATA slots, IDE Slots 4. Power Supply: Introduction of SMPS 5. Installing Hard Disk 6. Processor and its Types 7. Installing Processor | |
| | Unit Outcome: UO 1. Make use of hard disks and processors of various types effectively | |
| IV | Operating System and Software | 8 |
| | 1. Introduction to operating system 2. Installing Windows O.S. and Linux O.S. 3. Installing Drivers 4. Installing MS-Office 5. Installing Photoshop 6. Installing CorelDraw | |
| | Unit Outcomes: UO 1. Hands on installation process of hardware and software UO 2. Differentiate between various operating systems and application software | |
| V | Practicals (Included in above 04 units) | |
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Learning Resources:

1. PC Assembly and Installation, Dr. Tariq Hussain Sheikh , Naresh Kumar, Booksclinic Publishing, 2020
2. Upgrading and Repairing PCs, Mueller Scott, 22nd Edition, Pearson Education, 2015
3. Principles of Computer Hardware, Alan Clements, Oxford University Press, 1991
4. Essential Computer Hardware, Second Edition, Kevin Wilson, Elluminet Press, 2018
5. Computer Hardware: Installation, Interfacing, Troubleshooting and Maintenance, K. L. James, PHI, 2013
6. PC Hardware: The Complete Reference, Craig Zacker, John Rourke, 2017