



**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.
<b>I</b>	<b>Motherboard and BIOS</b>	<b>8</b>
	<ol style="list-style-type: none"><li>1. Computer Components</li><li>2. Computer Tools</li><li>3. Motherboard and its types (ATX, BTX)</li><li>4. Types of data cables</li><li>5. What is bus?</li><li>6. System bus types</li><li>7. Functions and features of bus</li><li>8. Motherboard ROM BIOS, Upgrading BIOS</li><li>9. Installing Motherboard</li></ol>	
	<b>Unit Outcomes:</b> UO 1. Explain basics of hardware components of computer UO 2. Perform installation of motherboard	
<b>II</b>	<b>RAM and Connectors</b>	<b>7</b>
	<ol style="list-style-type: none"><li>1. RAM and its Types: DRAM, SDRAM, DDR, DDR2 and DDR3</li><li>2. Different types of I/O Ports available and their purpose</li><li>3. Graphic cards and its function</li><li>4. Internal Connectors: Power Supply Connectors, PCI, ISA, IDE, AGP, PCI Express, SATA, DIMM</li><li>5. Installing RAM</li></ol>	
	<b>Unit Outcomes:</b> 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	
<b>III</b>	<b>Hard Disk and SMPS</b>	<b>7</b>
	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  <b>Unit Outcome:</b> UO 1. Make use of hard disks and processors of various types effectively	
<b>IV</b>	<b>Operating System and Software</b>	<b>8</b>
	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  <b>Unit Outcomes:</b> UO 1. Hands on installation process of hardware and software  UO 2. Differentiate between various operating systems and application software	
<b>V</b>	<b>Practicals (Included in above 04 units)</b>	

### Learning Resources:

1. PC Assembly and Installation, Dr. Tariq Hussain Sheikh , Naresh Kumar, Booksclinic Publishing, 2020
2. Upgrading and Repairing PCs, Mueller Scott, 22<sup>nd</sup> 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