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FACULTY OF COMPUTER APPLICATIONS – CBCS

G604.4E   Elective -I: HARDWARE AND PC MAINTENANCE

Learning Objectives:
- To build and maintain computer systems, desktops, and peripherals.
- To learn installing, diagnosing, repairing, maintaining, and upgrading Softwares

Learning Outcomes:
At the end of the course students will fully aware of
- Assembling Computer Systems
- Installing Various Operating Systems and other softwares
- Trouble suiting Computer Systems

UNIT I

The Complete PC: External Connections, Devices and Their Connectors. Introduction to networking hardware: Crimping, Cabling and NIC Card Fixing, Setting up of a Local Area Network(User account creation, IP Address configuration, MAC Address, ARP Tables),Essential Networking Commands. Microprocessor: Selecting, Installing, and Troubleshooting. RAM: Type, Installing, Troubleshooting. BIOS :Modify CMOS: The Setup Program, A Quick Tour Through a Typical CMOS Setup Program, Power-On Self Test (POST). Motherboards: Installing Expansion Cards, Upgrading and Installing Motherboards, Installing and Maintaining Power Supplies .Hard Drive Technologies: Installing Drives, BIOS Support: Configuring CMOS and Installing Drivers, Hard Drive Formatting, The Partitioning and Formatting Process, Installing Removable Media.

12 HOURS

UNIT II

Installing and Upgrading Windows: Preparing for Installation or Upgrade, Troubleshooting Installation Problems, Post-Installation Tasks. Windows7: The Windows Interface, Operating System Folders, Tech Utilities. Task Manager, Managing Users in Windows 7, Maintaining Windows, Optimizing Windows, Preparing Windows for Problems, Failure to Boot: Windows 7 Installing and Configuring a Wired Network, Connecting to the Internet, Installing a Printer in Windows, Network Security.

12 HOURS

Text Book:

1. Mike Meyers' CompTIA A+® Guide to Managing and Troubleshooting PCs Fourth Edition, 2016 Publication - McGraw-Hill

References Books:

1. Balvir Singh, PC Hardware, Published by : Firewal Media, 2008.

2. Craig Zacker and Jhon Rourke, The Complete Reference PC Hardware, Tata McGraw-Hill Publishing Company Limited, 2001

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G605.4E   Elective -II: Fundamentals of ICT

Learning Objectives:
- To make the students understand and learn the basics of computer for its effective use in day to day life.

Learning Outcomes:
- Be able to apply knowledge of computing analyze a problem, and identify and define the computing requirements appropriate to its solution
- Be able to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs

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UNIT I

Computer Basics: Introduction, Characteristics computers, Evolution computers, Generation of computers, Classification of computers, the computer system, Application of computers. **Computer Architecture:** Introduction, Central processing unit- ALU, Registers, Control unit, system bus, main memory unit, cache memory, communication between various units of a computer system. **Number system:** Conversion between binary, decimal, octal and hexadecimal integers. **Computer software:** Introduction, software definition, relationship between software and hardware, software categories, Installing and uninstalling software, software piracy, software terminologies.

12 HOURS

UNIT II

Computer programming languages: Introduction, developing a program, Program development cycle, Types of programming languages, generation of programming languages, Features of a good programming language. Word processing software, **Presentation software**: Introduction, , PowerPoint environment, creating a new presentation, working with different views, using masters, adding animation, adding transition, running slides. **Access:** Access environment, Database objects.

Spreadsheet software: Excel environment, copying cells using Fill handle, dragging cells, Formulas and functions, Inserting Charts, sorting. **The Internet:** Introduction, Evolution, basic   internet terms, Internet applications, Data over the internet. **Internet tools:** Web browser, Web browser features, Internet Explorer environment, Electronic mail, Email address structure, checking email, sending email, email attachment, How email works, advantages and disadvantages of email, searching

12 HOURS

Text Book: TL Education Solution Limited, **Introduction to Information Technology**, Pearson- Second Edition, 2008.

Reference Books:

1. Peter Norton, **Introduction to Computers**, 7th edition, Tata McGraw Hill Publication, 2011

2. Anita Goel, **Computer Fundamentals**, Pearson Education, 2011.

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