First Year B.C.A. (Under Science) Semester I

Course Code: BCA 101 **Course Title: Fundamentals of Computer**

Total Contact Hours: 48 hrs. (60 Lectures) **Total Credits: 04** **Total Marks: 100**

Teaching Scheme: Theory- 05 Lect./ Week

Course Objectives: The objective of this course is to study the basics of Computer System and to learn how to configure computer devices

UNIT NO.	DESCRIPTION	No. of LECTURES
UNIT 1	1. **Introduction to Computer System** 1.1. Introduction, Characteristics of Computers, Block diagram of computer 1.2. Types of computers and features- Mini Computers, Micro Computers, Mainframe Computers, Super Computers, Laptops and Tablets 1.3. Types of Programming Languages- Machine Languages, Assembly Languages, High Level Languages 1.4. Translators- Assembler, Compiler, Interpreter 1.5. Data Organization- Drives, Files, Directories	**10**
UNIT 2	**2. Introduction to Computer Peripherals** 2.1. Primary And Secondary storage devices 2.2. Primary storage devices – RAM, ROM, PROM, EPROM 2.3. Secondary Storage Devices - CD, HD, Pen drive 2.4. I/O Devices- Scanners, Digitizers, Plotters, LCD, Plasma Display, 2.5. Pointing Devices –Mouse,Joystick,Touch Screen 2.6. Number Systems 2.7. Introduction to Binary, Octal, Hexadecimal system Conversion, Simple Addition, Subtraction, Multiplication, Division	**08**
UNIT 3	**3. Concepts of Software** 3.1. Difference between imperative knowledge and definitional knowledge. Difference between fixed program and stored program computers. Definitions of syntax, static semantics, and semantics. Explain straight line, branching, and looping programs. 3.2. Definition: software, Types of software: System Software, Application Software. System Software: Operating System. Types of O.S. 3.3. Internal and External Commands, Batch Files. 3.4. Introduction to DOS and its limitations. 3.5. MS Windows: Desktop, Icons, File and Directory, Structure, Menu Items, Control Panel, File and Directory Search, Notepad, Paintbrush, Utility programs: Anti-virus, DiskCleaning, Defragmentation,	**12**

	Compression/Decompression of files. 3.6. Application software: Examples of commercial software with brief introduction.	
UNIT 4	**4. Editors and Word Processors** 4.1. Basic Concepts, Examples: MS-Word, gedit, vi. 4.2. Introduction to desktop publishing	**07**
UNIT 5	5. **Spreadsheets** 5.1. Purpose, usage 5.2. Creation of files in Spreadsheet	**08**
UNIT 6	**6. Presentation Tool** 6.1. Design Slides (using Text, images, charts, clipart) 6.2. Slide Animation 6.3. Template and theme creation	**05**
UNIT 7	**7. PC Hardware** 7.1. Introduction of Hardware. 7.2. Type and Working of Hardware parts – Ports, Motherboard, CPU. 7.3. Basic Input and Output Setting(BIOS), Network Interface Card(NIC), 7.4. Graphics card.	**05**
UNIT 8	**8. Troubleshooting and Preventing Problems** 8.1. Logical Fault Isolation – ADJUST method, Common Networking Problems, Tools for gathering information, Troubleshooting PC hardware	**05**

Reference Books:

1. Computer Fundamentals by P.K. Sinha &Priti Sinha, 3rd edition, BPB pub.
2. Computers Today by S. BasandraGalgotia Pub.
3. Microsoft Office 2000 by Vipra Computers, Vipra Printers Pvt. Ltd.
4. Advanced Microsoft Office 2000 by Meredith Flynin, Nita Rutkosky, BPB Pub using Microsoft office 2007 by Ed Bott ,Woody Leonhard , Pearson publication\
5. PC/HARDWARE BY-Join Josh O`Reilly Publication