

# Syllabus

## Computer Science

Session : 2016-2017

Class : B.Sc.I ( Semester-I )

### Paper-I Computer Fundamentals and C Programming

The examination in Computer Science will comprise One theory Paper and Practical examination for each semester. The theory paper will be of 3 Hours Duration and carry 80 marks. The Practical examination will be of 4 Hrs duration and carry 50 marks. The distribution of marks in Practical examination is given as. :

1)Program writing / execution (on group A & B )	: 30 marks
2)Practical / Record	: 10 marks
3)Viva-voce	: 10 marks
<b>Total</b>	<b>50 marks</b>

**UNIT-I:** Introduction to Computers : Characteristics, classification of Computers, block diagram of computer, memory and their types: Primary and secondary memory . Peripheral devices : Keyboard, mouse, scanner, printers: Impact, Non-impact, DMP, inkjet , Laser.

**UNIT-II :** Introduction to OS :DOS : Booting process, formatting, directory structure, FAT. Internal DOS commands : REN, CD, MD, RD, DIR, DEL, COPY, TYPE, DATE, TIME, COPYCON, PROMPT External commands: FORMAT , XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC.BAT, CONFIG.SYS Windows : Introduction, features, Windows Explorer Number system : Decimal, binary, octal, hexadecimal and their conversions, ASCII Code.

**UNIT-III :** Introduction to Internet : Direct, Types of Internet connection: Direct dial-up, broadband, Internet protocol : TCP/IP, FTP, HTTP, Domain name e-mail address, WWW, web browser : Internet Explorer. Netscape navigator, search engines.

**UNIT-IV :** Programming Concept : Algorithm flowcharting programming languages, assembler, interpreter, compiler programming process: program design, coding compilation, Execution, testing, debugging documentation structured programming : features and approaches.

**UNIT-V:** Elements of C : Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers, constants, variables, basic data types, symbolic constants, typedef operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.

**UNIT- VI :** I/O Operations :

Formatted I/O : printf(), scanf () , Unformatted I/O : getch (), getche () , getchar (), putch () , putche(), putchar (), gets (), Puts () , Control structure : if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue.

**Books Recommended :**

- 1) Computer fundamental : B Ram, Nas Age publication
- 2) Fundamentals of Computer : V. Rajaraman, PHI Publication.
- 3) Computer Fundamentals :PreetiSinha, BPB Publication.
- 4) Information Technology :Alexie and Mathews, Vijay Nikole Publication.
- 5) IT Tools and Applications :Alexie and Mathews, Vijay Nikole Publication.
- 6) Programming in C : E alaurusamy, TMH. Publications.
- 7) C Programming With C :Ravichandran.
- 8) Program with C : Byron Gottfried, schaum series Publication.

**Practicals :**Minimum 16 practicals based on

A. Unit-II, III and MS-WORD, MSEXCEL (Minimum 8 Practicals )

B. Unit-IV to Unit-VI (Minimum 8 Practicals)

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