

Telangana University



B.Sc. Computer Applications – I year

Syllabus

COMPUTER APPLICATIONS

Paper - 1

INTRODUCTION TO COMPUTERS & PROGRAMMING METHODOLOGY.

Part - A

UNIT 1:

Introduction to Computers: Characteristics and evolution of computer, computer generation.

UNIT 2:

Basic Computer Organisation : Input, Output, Storage, Arithmetic Logic, Control, Central Processing Units.

UNIT 3:

Number Systems Binary, Octal, Hexadecimal and decimal number systems, converting from one number system to another Fractional Numbers.

UNIT 4 :

Computer Codes: BCD, BCDIC and ASCH codes. Collating sequence.

UNIT 5 :

Computer Arithmetic : Binary Arithmetic Boolean Algebra: Boolean algebra and functions. Logic gates and Logic circuits.

Primary Storage : Storage, Storage locations and addresses. Storage capacity. RAM, ROM, PROM and EPROM.

UNIT 6 :

Secondary Storage Device : Sequential and direct - access devices, Magnetic tape, tape cassettes. Magnetic disk and floppy disk. Winchester disk. Storage hierarchy.

Input-Output Devices : Magnetic Media Devices. Printers, Keyboard Devices / Scanners and other devices.

UNIT 7 :

Computer Software: Relationship between Hardware and Software. Type of Software. Acquiring Software. Firmware.

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Planning the computer programme: Algorithm, Flow charts, decision, tables, Pseudo code.

PART-B

UNIT 8:

Introduction to C-lang: Variable names, data types and sizes. Constants. Declarations. Arithmetic, relational and logical operators. Type conversions. Increment and decrement operators. Bitwise operation. Assignment operators and expressions. Conditional expressions. Precedence and order of evaluation.

UNIT 9 :

Control Flow: Statements and blocks. If-else, else if, Switch statements, while, for, do-while loops, break and continue. Go to and lables.

Input and output : Standard input and output. Formatted input and output printf and scanf statements. Linc input and output.

UNIT 10:

Arrays: Creation and manipulation of arrays. Concepts of Functions, Pointers, Structures.

Suggested Readings :

1. Computer Fundamentals: PKSinha, BPS Publications 1992.
2. Programming with C, (Schaums outline series) Byron S Gottfried McGraw Hill Pub. 1990.



PRACTICAL

PAPER 1:

PROGRAMMING LAB-1

1. Familiarity with various commands in MS WORD.
2. Familiarity with various commands in MS Access.
3. Creation and manipulation of records in MS Access.
4. Creating and printing formatted reports using MS Access.
5. C Programms to be written and tested for the following problems.
 - a) Finding the factorial of given number.
 - b) Finding maximum and minimum of a given set of number,
 - c) Fibbanocci number generation.
 - d) Finding whether given number is palindrome or not.
 - e) Finding whether given number is palindrome or not.
 - f) Finding the roots of a quadratic equation.
 - g) Sinx and Cosx values using series expansion.
 - h) Generating a Pascal triangle.
 - i) Matrix addition and multiplication using arrays.
 - j) Bubble sort with in array.

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