Computer Concepts and 'C' Programming

Time: 3 Hours   Max. Marks: 100

NOTE: Answer any FIVE full questions choosing at least ONE from each unit.

UNIT - I

1. a. With a neat block diagram, explain the functional parts of a computer system   (10)

 b. Differentiate between impact and non-impact printers.

 c. Explain the primary and secondary memory.

 2. a. List and explain the four needs of the operating systems.

 b. List and explain the different types of operating systems.

 c. List and explain the four uses of computer networks.   (07)

UNIT - II

3. a. Define-algorithm. Write an algorithm to accept the length of three sides of a triangle and display the type of triangle.   (07)

   b. Define flowchart. Draw a flowchart to find the sum of odd and even numbers of first 'N' natural numbers and print the result.   (07)

 c. Explain the structure of a 'C' program.   (07)

4. a. Define keywords and identifiers. Differentiate between the two.

     Give examples for the two types.   (6)

 b. Classify broadly the data types of 'c' language.   (4)

 c. Write short notes on.   (10)

i) Relational operators.

 ii) Bitwise operators.

iii) Evaluation of arithmetic expression.

UNIT - III

5. a. Explain the formatted input and output statements of 'C' language. Give example for each.   (06)

b. Explain the working of else-if ladder statement with the flowchart and syntax. (06)

c. Write a 'c' program to accept the month and year (in numeric) and print the number of days in that month (use switch statement). (08)

6. a. Differentiate between while and do-while statements.

b. Write a 'c' program to fmd the GCD and LCM of two integer numbers using Euclid's algorithm.'

c. Write a 'c' program to check whether the given number is prime or not. Display appropriate message.

UNIT - IV

7. a. Define an array. Write a 'c' program to read N integer numbers and conduct abinary search for a given integer key element. Display the result using suitablemessage. (08)

b. Write a 'c' program to read matrix order M x N. Find the sum of secondary diagonal elements of the matrix and print the sum. (08)

c. Explain how 'c' string variables are declared and initialized with examples. (04)

8. a. List out the needs of the user defined functions. (04)

b. Write a C program to read given list of 'N' integer numbers and find the sum, mean, variance, and standard deviation. Use functions to (12)

i) Read the given list of numbers

ii) Find the sum of array elements & print

iii) Find the mean & print

iv) Find the variance & print

v) Find the standard deviation & print

c. Define pointers. Write a C program to swap the values of two variables using pointers. (04)