Graphic Era

Odd EndUncommon 1 Semester (Back Paper) Examination january 2025

Roll no...........................

Name of the Course and semester: BCA/BSc(IT) and 1st
Name of the PaperProgramming Concepts Using C Language
Paper Code: TBC 101/ TBI 101
Time:3 hour   Maximum Marks:100

Note:
  (i)   All questions are compulsory.
  (ii)   Answer any two sub questions among a, b and c in each main question.
  (iii)   Total marks in each main questions are twenty.
  (iv)   Each question carries 10 marks.

Q1.   (10 x 2 = 20 Marks) C01
  a.   What is a flow chart. Explain in detail also draw a flow chart to find whether a number is even or
       not .

  b.   Write an algorithm to find the greatest number among three numbers

  c.   What do you understand by term "Algorithm"? Describes its different characteristics. Write an
       algorithm to find if a given no is prime or not.

Q2.(10 x 2 = 20 Marks) C02
  a.   Explain various types of operators in C language. Write a C program to find given year is leap year
       or not using logicaloperator.

  b.   Explain the following
       Variable , constants and Identifiers

  c.   Analyze the use of different data types in C with suitable program.

Q3.(10 x 2 = 20 Marks) C0 3
  a.   What is typecasting in C? Explain in detail

  b.   Write a C program to convert a decimal number into ovtal number.

  c.   Explain recursion . write a C program to find factorial of a given no using recursion.

Q4(10 x 2 = 20 Marks) C0 4

  a.   Write a C program to find integers at odd position in an array of integers.

  b.   Write a C program to find maximum and minimum element in an ARRAY.

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c. Explain the difference between while and for loop with suitable example.

Q5(10 x 2 = 20 Marks)   CO 5

a. Write a c program to Swap two numbers using call by value and call by reference.

b. Define function. Write a C program to find given number is Armstrong number or not using functions.

c. What is the difference between static and dynamic memory allocation? Also explain which functions are used in dynamic memory allocation?