2072
B.Sc. (Hons.) Bio-Informatics
Second Semester
BIN-2007: C Language and Programming

Time allowed: 3 Hours   Max. Marks: 60

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Write short answers
    i. What is Precedence among Arithmetic Operators?
    ii. What is a Sparse Matrix?
    iii. Explain any two String functions.
    iv. How do unions differ from structures in terms of their storage requirements?
    v. Explain the use of Address and Indirection operators.
    vi. Give an example of nested Structure.   (6*2)

Unit-I

II. (a) How integer and floating point data are read and printed using scanf() and printf() in C?
    (b) Describe the built-in data types of C.   (6, 6)

III. (a) Explain the use of nested do while and for loops in C with the help of examples.
    (b) What is an Array? Write a C program to delete an element in one-dimensional Array.   (6, 6)

IV. (a) Write a C program that reads, prints and adds two matrices.
    (b) How strings are stored in C Language? Write a program that reads a string and prints it character by character on a separate line.

(6, 6)

Unit-II

V. (a) Explain the use of Top down Approach of Problem solving.
    (b) Explain any six Library Functions available in C with the help of examples.   (6, 6)

VI. (a) Define User Defined Function. Also write a function that returns sum of three floating point values.
    (b) What is Recursion? Write a recursive function to find GCD of two numbers.   (6, 6)

VII. (a) Explain the use of Arrays of Structures in a C program with the help of an example.
    (b) How are Pointers declared and initialized in C? Write a C program to illustrate the use of pointers in arithmetic operations.

(6, 6)

x-x-x