

2022

M.Sc. (Bio-Informatics) First Semester
MBIN-8005: Computer Programming and Concepts of Computing

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting atleast one question from each Unit.

x-x-x

1 Answer the following questions:

- a) Draw block structure of a computer. (12)
- b) How an algorithm is different from a flowchart?
- c) What is the difference between a variable and a constant? Give example.
- d) What is the use of break statement in a program?
- e) How an array is different from a variable? Give example.
- f) What is the difference between function definition and function declaration? Give example.
- g) Give two uses of pointers?
- h) What is the use of data files in programs?

UNIT-I

- 2) a) Discuss types of programming languages with the help of suitable examples. (6)
- b) Convert $(2762)_8$ into binary, decimal and hexadecimal (6)
- 3) a) Define the following with the help of examples: (6)
 - Keywords
 - Character set of C
 - Logical operators
- b) Write a C program to get three numbers from user, find average of those numbers and print the answer. Give comments in the program wherever required. (6)

UNIT-II

- 4) a) Write a program using for loop to print even numbers from 1 to n except number 2. Value of n is to be provided by user. (6)
- b) Differentiate between call by value and call by reference with the help of example programs. (6)
- 5) a) How structures are passed to a function? Explain with the help of an example program. (6)
- b) Write a program to insert an element in the beginning of an array. (6)

UNIT-III

- 6) a) How pointers are used with functions? Explain with the help of an example program. (6)
- b) Write a program to store marks obtained by n students in a data file, read those stored marks from the data file and print on screen. (6)
- 7) a) How to work with data files in a C program? Explain with the help of example code. (6)
- b) What is a pointer array? Write a program to show the usage of pointer array (6)

x-x-x