1129

M. Sc. (Biotechnology) First Semester

MBIO-104: Computer Applications

Time allowed: 3 Hours   Max. Marks: 80

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

x-x-x

I.   Answer the following:-

a)   Convert $(452)_{10}$ to its binary equivalent.

b)   What is structured programming?

c)   What are keywords? Give any two examples.

d)   Give two features of arrays.

e)   Explain any two uses of data structures.

f)   Give two applications of a graphical software.

g)   What does mean of a data signify? Give example.

h)   What is correlation?

UNIT – I

II.   a) Draw and explain block diagram of a computer system elaborating functioning of important components.

b) Differentiate between low level and high level programming.   (2x8)

III.   a) What are flow charts? Explain main symbols used in flow charts. Also discuss advantages and disadvantages of flowcharting technique.

b) Draw a flow chart to find whether the given number is a prime number or not.
                                                                                                        (2x8)

UNIT – II

IV.   a) What are control statements? Why are these used? With the help of suitable examples, explain if ….else statement.

b) Write a program in C/QBasic to find greatest number among given array elements.
                                                                                                        (2x8)

V.   a) What are loops? Differentiate between for and while loops.

b) Write a program in C/QBasic to read data from a text file and display it on the screen.   (2x8)

UNIT – III

VI. a) Explain various services provided by internet.

b) What are the advantages of using a word processing software? Discuss.   (2x8)

VII. a) Explain step by step process of mail merging with the help of a suitable example.

b) Discuss main features of a presentation software that can be used to make an effective presentation.   (2x8)

UNIT – IV

VIII. a) What is sorting? Explain all the steps of bubble sort with the help of a suitable example.

b) Find mean, variance and standard deviation for the following data:-

x	2	4	6	8	10
f	3	5	9	5	3

(2x8)

IX. a) What is the significance of t-test? Where can we use a t-test? Find t-test statistics for the following data:-

Subject ID	First Score	Second Score
1	3	30
2	6	34
3	5	25
4	7	56
5	23	67
6	43	40
7	29	25

b) Discuss main applications of Biotechnology.   (10,6)

x-x-x