

1125

M.Sc. Bio-informatics 1<sup>st</sup> 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. I which is compulsory and selecting at least one question from each Unit.

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I. Attempt the following in brief :-

- a) Bit and Byte.
- b) "BCD" character code.
- c) Assignment statement.
- d) Library functions.
- e) Nested structure.
- f) Unions.
- g) Pointer arrays.
- h) User-defined functions.

(8x1½)

UNIT-I

- II. a) Define Computer. Explain its classification based on size and performance. (2,4)
- b) Convert  $(22.13)_{10} = ( \quad )_2 = ( \quad )_8$
- c) Convert  $(AB.A)_{16} = ( \quad )_8 = ( \quad )_2$  (3,3)
- III. a) Define Programming Language. Explain its various types in detail. (2,4)
- b) Explain various data-types and I/o statements in C. (3,3)

UNIT-II

- IV. a) What is the difference between "if-else" and "switch" statement? Demonstrate through programming example. (3,3)
- b) Draw difference between "call by reference" and "call by value" through suitable parameter passing. (6)
- V. a) Draw difference between "while" and "do-while" statements with suitable examples. (6)
- b) What is recursive function? How is it called in main program? Explain. (2,4)

UNIT-III

- VI. a) Define Pointer. How it is declared and implemented in C to get its address and contents. Write an example to support your facts. (2,4)
- b) What is file? Explain any three operations in C to handle files. (1,5)
- VII. a) How Pointers are initialized and accessed in functions? Explain through example. (3,3)
- b) Write a program to calculate the average marks of 10 students in 3 subjects using files in C language. (6)

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(3007)