

Exam. Code : 103202

Subject Code : 1007

B.A./B.Sc. 2nd Semester

COMPUTER SCIENCE (Programming Using C)

Time Allowed—3 Hours]

[Maximum Marks—75

- Note** :—(1) Attempt any **FIVE** questions by selection at least **ONE** question from each section.
- (2) All questions carry equal marks.

SECTION—A

1. (a) What do you mean by decision tables ? How are these different from flowcharts ? Illustrate the use of each through suitable examples. 9
- (b) Find out the values of X, Y and Z in the following :—
 $(A2F.8)_{16} = (X)_8 = (Y)_{10} = (Z)_2$. 6
2. Explain the following :—
- (a) Algorithm and its characteristics. 8
- (b) ASCII Character Code. 7

SECTION—B

3. (a) What is meant by hierarchy of operators ? Provide a brief outline of all operators supported by C language along with their hierarchy within expressions and suitable examples. 7

- (b) What are 'data-types' ? What are the data-types supported by C language ? Illustrate the importance of each. 8
4. Explain the following :—
- (a) Types of Programming Errors. 7
- (b) Formatted console I/O Functions. 8

SECTION—C

5. (a) How do you define a String ? What are String functions ? How do you create array of strings ? Explain. 8
- (b) What is an array ? What are different types of array ? How do you create and use these arrays ? Explain. 7
6. Differentiate between the following :—
- (a) switch and if-else-if statements. 7
- (b) for and do-while loops. 8

SECTION—D

7. Differentiate between the following :—
- (a) Union and Structures. 5
- (b) Automatic, External and Static variables. 5
- (c) call-by-value and call-by-reference. 5
8. Explain the following :—
- (a) Pointers with Structure. 5
- (b) Scope and lifetime of a variable. 5
- (c) Recursion. 5