

Q.P. Code : 11125

**First Semester B.Sc. Degree Examination,
November/December 2019**

(CBCS Scheme – Freshers and Repeaters)

Computer Science

Paper CS1T – PROGRAMMING CONCEPTS USING C

Time : 3 Hours]

[Max. Marks : 70

Instructions to Candidates : Answer all Sections.

SECTION – A

- I. Answer any **TEN** questions. Each question carries **2** marks : **(10 × 2 = 20)**
1. What is structured programming? Explain briefly.
 2. What is an algorithm? Write its features.
 3. Give any two difference between if() and switch statement.
 4. Give any four advantages of functions.
 5. What is two-dimensional array? How is it declared?
 6. What are Possible Operations on strings? List them.
 7. What is a pointer? With example.
 8. What are local and global variables?
 9. What is enumerated data type? Give example.
 10. How does an append mode different from write mode?
 11. What is a pre-processor directive?
 12. What is a Macro? List the types of Macro.

SECTION – B

- II. Answer any **FIVE** questions from the following. Each question carries **10** marks : **(5 × 10 = 50)**
13. (a) Explain the classification of software.
(b) Explain the different data type supported by C-Programming Environment. **(5 + 5)**

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14. (a) Draw a flowchart to find the roots of quadratic equations showing all possible conditions.
- (b) Write the rules for naming variable. Give one example for each rule. **(5 + 5)**
15. (a) Elaborate in detail by explaining
- (a) Print f()
- (b) Scan f() functions with suitable example of 'C'-code.
- (b) Differentiate between formal and actual parameters with suitable example. **(5 + 5)**
16. (a) Write a program to find the sum of elements of two-dimensional arrays of given size $n \times n$.
- (b) Explain the four storage classes of 'C' programming. **(5 + 5)**
17. (a) Write a program to Implement Bubble sort.
- (b) Write a program to reverse the given string. **(5 + 5)**
18. (a) Explain the nested structure and array of structures with suitable examples.
- (b) Write a 'C' program to find the factorial of n number using recursion. **(5 + 5)**
19. (a) Explain calloc() malloc() and free() functions with suitable example.
- (b) What are the different modes of opening a text file? Explain with example. **(5 + 5)**
20. (a) What is undefining Macros? Differentiate between Macros and Functions.
- (b) Explain the concept of user defined header files with suitable example. **(5 + 5)**