

I Semester B.A./B.Sc. Examination, November/December 2018

(CBCS) (2014-15 and Onwards) (Freshers + Repeaters)

COMPUTER SCIENCE – I

Programming Concepts Using 'C'

Time : 3 Hours

Max. Marks : 70

Instruction : Answer all Sections.

SECTION – A

I. Answer any 10 questions. Each question carries 2 marks. (10x2=20)

- 1) What are language translators ?
- 2) Write the basic structure of C program.
- 3) Explain getchar() and putchar() functions.
- 4) Write the general syntax of switch statement.
- 5) What is a built-in function ? Give any 2 examples.
- 6) How are individual elements of a two-dimensional array accessed ?
- 7) What are the different methods of inputting strings ? Give examples.
- 8) Differentiate between automatic and external variables.
- 9) What is the difference between structure and union ?
- 10) What do you mean by call-by-value and call-by-reference ?
- 11) What are the different modes of opening a file ?
- 12) What is preprocessor directive ?



SECTION - B

II. Answer **any 5** questions. **Each** question carries **10** marks. (10×5=50)

- 13) a) i) Write an algorithm to find largest of 3 numbers. 5
ii) What are increment and decrement operators ? Explain with examples. 5

OR

- b) i) Write a flowchart to find the factorial of a given number. 5
ii) Explain the different relational operators. 5
- 14) a) i) Explain the printf() function with general syntax. 5
ii) Explain while-do and do-while statements. 5

OR

- b) i) Write a C program to find sum of first N natural numbers. 5
ii) Explain recursion with an example. 5
- 15) a) i) What are the advantages of arrays ? 5
ii) Explain any 5 string related functions. 5

OR

- b) i) Write a program to find the roots of a quadratic equation. 5
ii) Write a C program to reverse a given string. 5
- 16) a) i) Define a C structure to store student details name, register number, marks in 3 subjects, total and average marks. 5
ii) Explain pointers with examples. 5

OR

- b) i) Explain briefly the different file operations. 5
ii) Define and explain macro with an example. 5
- 17) a) i) Write a program to find the largest of three numbers. 5
ii) Explain nested if-statement. 5

OR

- b) i) Explain the different types of array. 5
ii) Write a program to find the smallest element in an array. 5