**I Semester B.A./B.Sc. Examination, November/December 2018
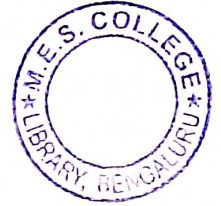(CBCS) (2014-15 and Onwards) (Freshers + Repeaters)
COMPUTER SCIENCE – I
Programming Concepts Using 'C'**

Time : 3 Hours   Max. Marks : 70

Instruction : *Answer all Sections.*

SECTION – A

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

1) What are language translators ?

2) Write the basic structure of C program.

3) Explain getchar( ) and putchar( ) functions.

4) Write the general sytax 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

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