I Semester B.A./ B.Sc. Examination, November/December 2017
(2014 – 15 and Onwards)
(CBCS) (F+R)
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 some of the features of C.

3) Find the value of m.n. in the following C statement

   int x = 5, y = 2;

   float m, n ;

   m = x/y;

   n = (float) x/y;

4) What is the difference between if and switch statement ?

5) What is a function prototype ?

6) Give reason why the index value of an array is integer and not a float using suitable example.

7) What is the difference between strcmp () and strcmpi ( ) ?

8) What are unions ?

9) What is a pointer and what are the operators associated with a pointer ?

10) How do you declare a file ? Give suitable example.

P.T.O.

11) Write an example for creating and implementing user defined header file.

12) Write the difference between malloc ( ) and calloc ( ) functions.

SECTION – B

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

13) a) Write a flowchart to find the sum of N natural numbers.

    b) Write the structure of a C program and explain the various sections.   (5+5)

14) a) Explain switch statement, with suitable example.

    b) Explain do-while loop with an example.   (5+5)

15) a) Write a C program to calculate NCR = N ! /R ! *(N – R) ! using function.

    b) What is an array ? Explain the different types of arrays with their syntax
       and example.   (5+5)

16) a) Write a C program to find the transpose of a given matrix.

    b) What is a storage class ? Explain any 2 storage classes.   (5+5)

17) a) What are structures ? How do you define and declare a structure variable ?

    b) What is typedef ? Explain.

    c) What is call-by-value and call-by-reference ?   (4+3+3)

18) a) What do you mean by static and dynamic memory allocation ?

    b) Explain any 6 file handling functions.   (4+6)

19) a) What is a macro ? Give example.

    b) Explain various categories of preprocessor directives.   (3+7)

20) a) Write a C program to compare two strings using pointers.

    b) Explain :

       i) Function with arguments and no return value.

       ii) Function with arguments and return value.

———————