

END SEMESTER EXAMINATION, MAY/JUNE - 2019**BCA FIRST SEMESTER****COURSE CODE: BCA107 COURSE TITLE: PROGRAMMING CONCEPTS USING C LANGUAGE****[Time allotted: Three hours]****[Max. Marks: 100]****Note:** Attempt all Sections & Questions.**Section (A)****Q.1. Attempt all questions.****(2 x 10 = 20)**

- a. What is the difference between calloc() and malloc()?
- b. What is preprocessor?
- c. How to print 1 to 100 using any loop?
- d. Differentiate between definition and declaration of a variable.
- e. What is pointer? How to declare them?
- f. What is looping? Differentiate between while and do-while loop.
- g. Compare scanf() and gets().
- h. Define conditional statements.
- i. What is the importance of main() function in C?
- j. What are the library functions?

Section (B)**Q.2. Attempt any 5 questions.****(7 x 5 = 35)**

- a. What is operator? Explain all the operators used in C.
- b. What is Storage class? Explain each in brief.
- c. How to define structure in C? Explain with example.
- d. What is data type? Explain all the categories.
- e. What are header files? Can I run program without using header file?
- f. What is function recursion? Explain with proper syntax and example.
- g. Define String. List the different types of string-handling functions.

Section (C)**Attempt any 3 questions.****(15 x 3 = 45)**

- Q.3.** a. Write a program to swap two values of variables using call-by-value and call-by-reference. **7.5**
b. What are parameters? Differentiate between formal parameters and actual parameters used in the functions? **7.5**
- Q.4.** a. What do you understand about data type? List the different types of data type used in C language. **7.5**
b. Write a program to print a table of a given number using while loop. **7.5**
- Q.5.** a. What is an Array? How to define and declare them? **7.5**
7.5
b. Write a program to enter N elements in an array and find the sum of those elements. **7.5**
- Q.6.** Explain about the following:
a. while loop **5**
b. do while loop **5**
c. for loop **5**
- Q.7.** a. What is the difference between structure and union? **7.5**
b. Write a program to print length of a string without using any built-in function. **7.5**