END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER 2017

Paper Code: BCA-105	Subject: Introduction to Programming Language using C
Time: 3 Hours	Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory. Select one question from each unit.

Q1   (a) What are the keywords in C? Give examples.   **(2.5x10=25)**
     (b) Explain various bitwise operators available in C.
     (c) What is the function of break and continue statement in C?
     (d) Briefly explain the concept of recursion.
     (e) What are macros in C?
     (f) Differentiate between function declaration and function definition.
     (g) Name functions of standard library ctype.h.
     (h) What are nested control statements? Give examples.
     (i) What is the need of pre-processor directives in C?
     (j) Differentiate between post increment and pre-increment operator with example.

Unit-I

Q2   (a) Explain loop statements in C.   **(6.5)**
     (b) What are different types of operators in C? Briefly explain.   **(6)**

Q3   (a) What is an array? Write a program to print average of all elements of an array.   **(6.5)**
     (b) Differentiate between while and do-while loop constructs with example.   **(6)**

Unit-II

Q4   (a) With the help of a program, explain the concept of call by value and call by reference.   **(6.5)**
     (b) Define the following terms: **(6)**
       (i) Static Variables
       (ii) Pointers
       (iii) Dynamic Memory Allocation

Q5   (a) Explain the concept of recursion by writing a program to find factorial of any given number.   **(6.5)**
     (b) How array of pointer are passed as arguments in a function. Give example. **(6)**

Unit-III

Q6   (a) Explain the concept and need of structures in C. How is union different from structure?   **(6.5)**
     (b) What is file handling? What are various functions used in file handling? Briefly explain.   **(6)**

Q7   What is file pointer? Write a program in C to create a file, write string data into it and count number of characters in that file.   **(12.5)**

Unit-IV

Q8   (a) What is array of strings? Describe various string manipulation functions with example.   **(6.5)**
     (b) What are standard libraries in C? Give examples of functions in libraries   **(6)**

Q9   Write a program to first compare and then concatenate two strings entered by