

# END TERM EXAMINATION

FIRST SEMESTER [BCA] NOVEMBER-DECEMBER 2018

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 Write short notes of the following (**Any Five**): (5x5=25)
- (a) What you mean by pre-increment and post-increment operator? Example with an example.
  - (b) Differentiate between structure and union. Explain the use of "extern" keyword
  - (c) Explain the concept of pointer? Define the dynamic memory allocation and its various functions.
  - (d) Differentiate between static and register storage class in C language.
  - (e) What is a string? Write program for the concatenation of two strings.
  - (f) What are preprocessor directives? from which symbol do they start?

### UNIT-I

- Q2 (a) Explain while loop and do-while loop with an example. Elaborate Difference between them. (4.5)
- (b) Write a program to find the largest number among the three numbers. (8)
- Q3 (a) Explain the Switch statement, Break statement, and Continue statement with an example (6)
- (b) Write a program to find the factorial of a number using recursion. (6.5)

### UNIT-II

- Q4 (a) What do you mean by pointer? How pointer variables are initialized? Write a note on pointer arithmetic with a proper example in C language. (6.5)
- (b) Write a program to find the out maximum number in array using pointer. (6)
- Q5 (a) Explain the array of pointers to functions with suitable example. (4.5)
- (b) Write the difference between call by value and call by reference with suitable example. (8)

### UNIT-III

- Q6 (a) Explain the concept of structure. Write a C program to stores the information (name, roll, Branch, dept., and marks) of 10 students using structures. Find who has topped in the class. (12.5)
- Q7 Write a short note on each. (12.5)
- (i) How to pass a structure to a function?
  - (ii) Bit fields
  - (iii) Automatic storage classes
  - (iv) File handling

### UNIT-IV

- Q8 (a) Write a program to compare two strings where they are identical or not. (4.5)
- (b) Explain the following inbuild functions. (8)
- (i) Strlen()
  - (ii) Strcat()
  - (iii) Strlwr()
  - (iv) Strupr()
- Q9 (a) Write a Program to find the largest and smallest word in a string. (4.5)
- (b) Explain the following header files. (8)
- (i) Stdlib.h
  - (ii) Ctype.h
  - (iii) Math.h
  - (iv) Process.h

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