

**BCA First Semester Examination, Dec.-2019**

**THIRD PAPER**

**Programming in 'C'**

Paper Code:- 42103

**Time Allowed: Three Hours**

**Maximum Marks.70**

*(1) No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.*

*(2) All the parts of one question should be answered at one place in the answer book.*

**(Attempt all six questions.)**

**Part I (Question No. 1 & 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.**

**Part-I**

**1. Answer any 10 questions. Each question carries 1 mark.**

**10x1= 10**

**(Words limit up to 20 words each)**

- a) What is Pseudo Code?
- b) What is an Algorithm?
- c) What is Enumerated Data Type? Give an example.
- d) What are the different methods to declare a constant in 'C'?
- e) What is Type Casting? Give an example.
- f) What is the difference between a do-while loop and a while loop?
- g) What is data type of a Pointer Variable?
- h) What is a NULL pointer? Give example.
- i) What is the difference between actual and formal parameters?
- j) What are Static Variables?
- k) What is the difference between Structure and Union?
- l) What is Binary Data File?

**2. Answer all the questions. Each question carries 5 marks.**

**4x5 = 20**

**(Words limit up to 50 words each)**

- a) Explain different data types available in 'C'.
- b) Write a 'C' program to find the length of a string without using built-in functions.
- c) How a string can be passed to a function as parameter? Explain with an example.
- d) Explain different types of Console I/O functions available in 'C' with suitable examples.

**P.T.O.**

## **Part-II**

### **Unit-I**

3. Discuss different types of operators available in C with suitable examples. **10**

**OR**

What are Preprocessors? Discuss some important preprocessors with their role in a C program. **2+8**

### **Unit-II**

4. Explain the following string functions with suitable examples: **4x2.5**  
(a) getch( )                      (b) getchar( )                      (c) getche( )                      (d) scanf( )

**OR**

Write a program in C to print the sum of all the elements of every row and every column of a MxN matrix of integers. **10**

### **Unit-III**

5. What do you mean by Recursion? Write a recursive program in 'C' to print all the elements of an array. **10**

**OR**

Write a program in 'C' to calculate the sum of all the elements of an array of N integers using pointers. **10**

### **Unit-IV**

6. Write a program in 'C' to reverse the contents of a random file and print it. **10**

**OR**

Write a program using structures to count the total number of days elapsed between two given dates. **10**

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