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17/71-C

B.C.A. (First Semester) Examination, 2017

Paper : Third (103)

(Programming Principles and 'C' Language)

Time : Three Hours]

[Maximum Marks : 70

Note : Attempt questions from **all** sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt **all** parts of this question. Give answer of each part in about **50** words.

$$1\frac{1}{2} \times 10 = 15$$

1. (i) Define flowchart.
- (ii) What is main difference between variable and constant?
- (iii) What is nested loop?
- (iv) What is Syntax Error?
- (v) Explain any two string functions.

P.T.O.

(2)

- (vi) What is pointer?
- (vii) Differentiate between union and structure.
- (viii) Explain any two file handling function.
- (ix) Explain macros?
- (x) What is preprocessor?

Section-B

(Short Answer Type Questions)

Note : Attempt **all** questions. Give answer of each question in about 200 words. $7 \times 5 = 35$

2. Discuss about the various steps involved in the Analysis of algorithm.

OR

Explain in brief structure of C programming.

3. Write a program to find the factorial of a given number of your choice.

OR

Define a control statement and explain the various types with an example.

4. Discuss the Two Dimensional Array with examples.

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(3)

OR

What do you mean by Recursion? Explain with an example.

5. Describe two different ways to specify the address of an array element.

OR

What is a structure member? What is the relationship between a structure member and a structure?

6. Explain dynamic memory allocation in detail.

OR

Write a program to store the manufactures detail in a file.

Section - C

(Long Answer Type Questions)

Note : Attempt **any two** questions. Give answer of each question in about 500 words.

$$10 \times 2 = 20$$

7. What is the range of various data types? Discuss the primary data types in detail.

(4)

8. Write a program in C to sort integer elements of one dimensional array in ascending order.
9. Discuss the parameter passing techniques of function with an example.
10. Draw a Flowchart to find the average of 10 numbers.
11. Write short notes on any **two** of the following:
- (i) Switch Statement
 - (ii) Nesting of function
 - (iii) Random Access File.