

BCA -102(N)

Roll No. :

B.C.A. (First Semester) EXAMINATION, Dec.-2015

(New Course)

Paper – Second

PROGRAMMING PRINCIPLE & ALGORITHM

[Time: Three Hours]

[Maximum Marks: 75]

Note: Section A is compulsory. Attempt any two questions from Section B & two question from Section C

Section – A

Note : Attempt all the question, each question will carry three marks.

- Q.1. A) What is Primitive & Non Primitive data type? Explain four basic data types in C?
- B) Differentiate between Constants & Variables. Explain Different types of Constants in C.
- C) What is a conditional operator? When do you use this operator?
- D) Write a short notes on C Pre-processor?
- E) Write a program by using function in C to accept two numbers & print the smaller number among them.
- F). Explain the difference between 'break' & 'continue' with an example.
- G). What is the difference between 'Trial & Error Algorithm' & 'Brain storming Algorithm'?
- H). Write a program to calculate the value of ${}^nC_r$.

- I). What is recursion? Explain with suitable example.

Section – B

Note: Attempt any two questions out of this section. Each question will carry 12 marks.

- Q.2. (a) What are C Tokens . Describe the different types of Token available in C Language. 8
- (b) How does Switch statement differ from nested if? Show with example. 4
- Q.3 (a) Explain with examples different looping statements. 8
- (b) Describe the two different form of if-else. 4
- Q.4. (a) Explain the relational & logical operator with suitable examples. 8
- (b) Define what is Precedence & associatively? 4
- Q.5 (a) Discuss the formatted I/O statements with two examples each. 8
- (b) What are escape sequences? 4

Section – C

Note: Attempt any two questions out of this section. Each question will carry 12 marks

- Q.6. (a) How is function definition distinguished from Function call? Give an example. 8
- (b) Write a program in C to print the number from 4 to 9 & their squares. 4
- Q.7. Write a flow chart & program to calculate the roots of the Quadratic

P.T.O.

Equation.

12

- Q.8. (a). What is Pseudo Code? How it is used as a problem solving tool? 4
- (b). Write a program to calculate the factorial of a given number. 8
- Q.9. (a). Explain the difference between 'Call by Value' & 'Call by Reference'. 4
- (b). Write a C program which find & print all three digit numbers which are equal to the sum of the cubes of their digit. For example ($153 = 1^3 + 5^3 + 3^3$) 8