Paper Code : 21309

F–409

B. C. A. (Second Semester) EXAMINATION, 2019

(New Course)

Paper No. BCA—N—204

PROGRAMMING IN 'C'

Time : Three Hours]   [*Maximum Marks : 70*

Note : Attempt any *five* questions. All questions carry equal marks.

1. (a) What is a data type ? Explain various data types available in 'C' language with syntax and examples.   7

   (b) What are various categories of operations available in 'C' language ? Describe any *two* category operations.   7

2. (a) What is an array ? How many types of arrays are available in 'C' language ? Explain with proper example.   7

   (b) Write a program in 'C' language to display tables from 2 to 20.   7

(B-9) P. T. O.

3. (a) Distinguish between procedural and modular structed programming. Explain each with examples.   7

   (b) What is recursion ? Write a program to calculate factorial of a number using recursion.   7

4. (a) How are pointer and arrays related ? Describe malloc( ) and calloc( ) using pointer.   7

   (b) How call-by-reference can be implemented using pointers ? Write a program to swap values of two variables using call-by-reference.   7

5. (a) What is a file ? Write various attributes and operations related to files.   7

   (b) What is a macro ? Describe its definition and calling using file concept.   7

6. (a) What is the use of storage classes in 'C' language ? Describe various storage classes with proper examples. http://www.mjpruonline.com 7

   (b) That is the use of loop in 'C' language ? Write various available loops in 'C' language and explain their use with examples.   7

7. (a) What is difference between switch and if-else statements ? Write a program in 'C' language using switch statement.   7

   (b) Taking suitable examples differentiate between break and continue statement.   7

(B-9)

8. Write shorts Notes on any *four* of the following :

$3\frac{1}{2}$ each

   (a) Comma operator

   (b) Dynamic memory allocation

   (c) File appending and deleting

   (d) Nested structure

   (e) Union data structure

   (f) Parameter passing methods

   (g) Pointer arithmetic.