# BCA DEGREE END SEMESTER EXAMINATION OCTOBER 2016 <br> SEMESTER - 1: CORE COURSE COURSE: 16U1CRBCA2; PROGRAMMING IN 'C’ <br> For Regular (2016 Admission) 

Time: Three Hours
Max Marks: 75

## SECTION - A

Answer all Questions. Each question carries 1 mark

1. Define Flowchart.
2. Compare assembler with compiler.
3. Name the different data types in C.
4. Distinguish between variable and constant.
5. Write $C$ program to find even numbers between 20 and 30 using for loop.
6. What is the minimum number of times that a do - while loop can be executed?.
7. Differentiate between formal arguments and actual arguments.
8. Define a structure for representing rollno, name and mark of a student.
9. Explain how a file can be opened in read mode.
10. Explain any two string handling function in C .
$(1 \times 10=10)$

## SECTION - B

Answer any eight Questions. Each question carries 2marks
11. Draw a flowchart to find the largest among three different numbers entered by user.
12. What is the use of conditional operators in C? Explain with an example.
13. What is meant by operator precedence? What are the relative precedence of arithmetic operators?
14. Differentiate between break and continue statement.
15. Explain user defined functions with example.
16. Explain the concept of multidimensional array with example.
17. Write a program to find factorial of a number using recursion..
18. With the help of an example explain what is the use of typedef?
19. Illustrate the difference between static and dynamic memory allocation with the help of an example.
20. Explain fopen function and list file modes available in $C$.

## SECTION - C

Answer any five Questions. Each question carries 5 marks
21. Give an algorithm and flowchart to display Fibonacci Series.
22. Compare if and switch with examples.
23. Write a C program to generate first N prime numbers.
24. Write a program using function to test whether a given string is palindrome or not.
25. With suitable example discuss pointer arithmetic in C .
26. Define structure and union. How does a union differ from a structure?
27. Explain macro with an example. Distinguish between the execution of macro and function.

## SECTION - D

Answer any two Questions. Each question carries 12 marks
28. Explain different loop control statements in C with example.
29. What are the various storage classes in C? Explain with examples.
30. Write a C program to find the product of two matrices and print the result in column wise.
31. Write a C program to perform bubble sort for preparing the rank list of students using array of structure.
$(12 \times 2=24)$

