Paper Id: | 206101 | **Roll No:** | | | | | | | | | | | | |

MCA (INT)
(SEM I) THEORY EXAMINATION 2019-20
PROGRAMMING IN C

Time: 3 Hours   *Total Marks: 70*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.   Attempt *all* questions in brief.   **2 x 7 = 14**

a.   What will be the output of the following code
for(i=1; i<10;i++);
printf("%d", i);

b.   What is the use of flow chart?

c.   What do you mean by system software and application software?

d.   What is the task of a loader?

e.   What do you mean by formal parameters?

f.   If a = 14 and b= 3, what is the result of a/b in C language?

g.   Declare and initialize a 2 dimensional array during compile time.

SECTION B

2.   Attempt any *three* of the following: **7 x 3 = 21**

a.   How do-while loop is different from while loop? Give the syntax and working of both the loops.

b.   What are the disadvantages of 1st generation computers?

c.   Draw a flow chart to find the sum of 1 to N.

d.   Write a function to find factorial of a number.

e.   Write a program in C to search a number in a given array of numbers.

SECTION C

3.   Attempt any *one* part of the following: **7 x 1 = 7**

(a)   Write a program in c to count the number of characters in a string.

(b)   What do you mean by type casting? Illustrate implicit type casting and explicit type casting with suitable example.

4.   Attempt any *one* part of the following: **7 x 1 = 7**

(a)   Define algorithm. What are the attributes of a good algorithm?

(b)   Write a program in C to print the pattern
A
A B
A B C
A B C D
A B C D E

5.   Attempt any *one* part of the following: **7 x 1 = 7**

(a)   **"A variable is declared as static".** Illustrate with example the behavior of the variable.

(b)   Write a program in C to print the transpose of a matrix.

6.   Attempt any *one* part of the following: **7 x 1 = 7**

(a)   Differentiate between compiler and interpreter.

(b)   What do you mean by precedence and associativity of operators? Explain with a suitable example.

7.   Attempt any *one* part of the following: **7 x 1 = 7**

(a)   Write a function to check an input number is prime or not. The function should return a value of 1 if the number is prime otherwise it should return 0.

(b)   Write the syntax of switch statement and explain its working. Illustrate with a suitable example.