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Printed pages: 01 **Sub Code: RCAI101**

Paper Id: | 1 | 0 | 9 | 1 | **Roll No:** | | | | | | | | | | |

MCA Integrated

(SEM. I) THEORY EXAMINATION 2017-18

PROGRAMMING IN C

Time: 3 Hours ***Total Marks: 70***

Notes:

- *Attempt all Sections.*
- *Assume any missing data.*

SECTION-A

1. Define / Explain the following : (7x2=14)

a) What are the basic functions performed by a computer?
b) Compare primary memory and secondary memory.
c) Write an algorithm to print sum of numbers from 1 to 10.
d) What is a recursive function? Why it is used?
e) What happens if you create a loop that never ends?
f) What is the use of return statement?
g) Evaluate the following expression if a=11, b=9 and c=3 :

a<b && a>c || (b+1>c-1)

SECTION–B

2. Attempt any five of the following : (5x7=35)

a) Discuss characteristics and character set of C language.
b) Define identifier. What are the rules for creating valid identifiers? Explain
c) What do you mean by a storage class? Describe various storage classes with proper example.
d) What is a programming language? Discuss first and second generation of languages with their respective advantages and disadvantages.
e) Write a C program to check whether a triangle is right-angled or not.
f) Discuss any five library functions used in C language.
g) Differentiate between for, while and do-while loops with suitable example.
h) Write a C program to print the following pattern:

A
BB
CCC
DDDD
EEEEE

SECTION-C

Attempt any two of the following: (2x10.5=21)

3. What do you understand by the term data type? Describe various data types available in C language with proper example.

4. Define function. What are the advantages of using functions? Write a C program to interchange the contents of two variables using function.

5. Write aC program to enter marks of 5 subjects of a student and find its division (first, second, third and fail).

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