

Roll No.

Total No. of Pages : 02

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**B.Sc. (IT) (2015 to 2018)/BCA (2014 to 2018) (Sem.-1)**

**PROGRAMMING IN C**

**Subject Code : BSIT/BSBC-102**

**M.Code : 10044**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTION TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **SIX** questions carrying **TEN** marks each and a student has to attempt any **FOUR** questions.

**SECTION-A**

1) **Answer briefly :**

- a) Write down the steps in development of a program.
- b) Differentiate between while and do while statement.
- c) How is structure declared in C?
- d) How data file is created?
- e) Define recursion with suitable example?
- f) Differentiate between structure and union.
- g) How two dimensional arrays are represented in memory?
- h) Give the rules of naming identifier.
- i) What are local and global variables? Give example of each.
- j) Define Macro. What is the use of macro?

## SECTION-B

- 2) What is meant by operator precedence and associativity? What are the relative precedence of the relational, equality and logical operators with respect to one another and with respect to the arithmetic and unary operators? What are their associativities?
- 3) Write a loop that will generate every third integer, beginning with  $i = 2$  and continuing for all integers that are less than 100. Calculate the sum of those integers that are evenly divisible by 5. Use two different methods to carry out the test,
  - (a) Use the conditional operator ( $?:$ ).
  - (b) Use an if- else statement.
- 4) What is recursion? What advantage is there in its use? Write a recursive algorithm to print odd numbers between 1 to 10.
- 5) Write a C program to count the number of characters in a given data file.
- 6) What are strings? Explain various string handling functions with suitable examples of each.
- 7) Define Pointer Variable. What is the use of pointers? Discuss concept of declaration and initialization of pointers? What is the purpose of the data type included in the declaration?

**NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.**