

Roll No. 

Total No. of Pages : 02

Total No. of Questions : 07

**B.Sc.(CS) (2013 & Onwards) (Sem.-1)**  
**PROBLEM SOLVING AND PROGRAMMING IN C**  
Subject Code : BCS-106  
Paper ID : [A2186]

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) What is Flowchart? What are its uses?
- b) Briefly discuss the structure of a C program.
- c) What is a switch statement? Discuss its format.
- d) Differentiate between parameter passing by value and by reference.
- e) Define Recursion. How recursion is implemented in C?
- f) What is a String? Name the various string processing operation available in C.
- g) What is a Pointer? How is a pointer declared in C?
- h) What are pre-processor directives?
- i) Explain the purpose of break and continue statements.
- j) Give an example of a nested structure.

### SECTION-B

2. Explain in detail the steps in the development of a program.
3. What are the various control structures available in C? Discuss and compare looping constructs giving suitable examples.
4. What are the various storage classes used in C? Discuss the purpose and use of each.
5. Write a program in C to multiply two given matrices.
6. What is a structure? What are the operations that can be performed on a structure? What is the difference between structure and union?
7. What are files? How a file is declared and defined in C? Discuss the functions to open, close, read and write data files in C.

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