Subject Code: R13105/R13 | Set No - 1 |

I B. Tech I Semester Supplementary Examinations May/June - 2016
COMPUTER PROGRAMMING
(Common to CE, ME, CSE, PCE, IT, ChemE, AeroE, AME, MinE, PE, MetalE, Textile Engg.)

Time: 3 hours   **Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**
Answering the question in **Part-A** is Compulsory,
Three Questions should be answered from **Part-B**
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PART-A

1. (a) What is a algorithm? What is flow chart? List the difference between them.
   (b) Write a program to print numbers from 1 to 100 using while loop.
   (c) What is recursion? Write a program to find factorial of a number using recursion.
   (d) What is dangling memory?
   (e) What is a self referential structure?
   (f) What is a file? List Formatted I/O functions.

                                                                    [4+4+4+3+3+4]

PART-B

2. (a) Explain different computer languages.
   (b) Explain basic data types and their sizes.

                                                                    [8+8]

3. (a) Explain multi-way selection statements with example.
   (b) Write a C program to multiply given two matrices.

                                                                    [8+8]

4. (a) Explain the following storage classes with example
       (i)   extern
       (ii) auto
       (iii) register
       (iv) static
   (b) Explain the following
       (i)   Header files
       (ii) C preprocessor

                                                                    [8+8]

5. (a) What is a pointer? Explain address arithmetic with example.
   (b) Explain dynamic memory management functions with example.

                                                                    [8+8]

6. (a) Explain the meaning and purpose of the following
       (i) Template (ii) Tag   (iii) sizeof   (iv) struct
   (b) What is structure? Explain array of structures with example.

                                                                    [8+8]

7. (a) Explain the following high level I/O functions
       (i)   fopen()
       (ii) fclose()
       (iii) getw( )
       (iv) putw()
   (b) Two files DATA1 and DATA2 contain sorted lists of integers. Write a program to
       produce a third file DATA which holds a single sorted, merged list of these two lists.

                                                                    [8+8]
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