I B.Tech I Semester Supplementary Examinations May/June - 2016
C PROGRAMMING
(Common to All Branches)

Time: 3 hours   **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) Explain machine, symbolic and high-level languages briefly.
   (b) Explain basic data type and their sizes.
   (c) Explain the precedence and order of evaluation with example.

2. (a) Explain if and switch statements.
   (b) A cloth showroom has announced the following seasonal discount on purchase of items:

Purchase amount	Discount	
	Mill cloth	Handloom items
0-100	----	5%
101-200	5%	7.5%
201-300	7.5%	10.0%
Above 300	10.0%	15.0%

   Write a program using switch and if statements to compute the net amount to be paid by a customer.

3. (a) Explain different string functions with example.
   (b) What is a Fibonancci series? Write a program using do-while loop to calculate and print the first m Fibonancci numbers.

4. (a) What is an Array? Explain accessing and storing of elements in two and multiple dimensional.
   (b) Write a C program check the symmetricity of a matrix.

5. (a) What is a function? Explain different user defined functions with example.
   (b) What is Towers of Hanoi? Write a recursion solution for it.

6. (a) What is a pointer? Explain reasons for using pointer.
   (b) Write a program using pointers to compute the sum of all elements stored in an array.

7.   Define a structure that can describe a hotel. It should have members that include the name, address, grade, average room charge, and number of rooms.
      Write functions to perform the following operations:
      (i) To print out hotels of a given grade in order of charges
      (ii) To print out hotels with room charges less than a given value.

8. (a) What are the file I/O functions in C? Briefly explain task performed by each function.
   (b) Write a program to read an input file and count number characters in the input file.

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