# I B.Tech Examinations, June 2011 COMPUTER PROGRAMMING

Common to Mechanical Engineering, Mechatronics, Production Engineering, Automobile Engineering

Time: 3 hours Max Marks: 80

#### Answer any FIVE Questions All Questions carry equal marks

\*\*\*\*

- 1. (a) Write a 'C' program to find sum of digits of an integer using while loop.
  - (b) Give the features of for loop.

[10+6]

- 2. (a) What is the purpose of using header file?
  - (b) Write a 'C' program to find power of a given number using recursive function. [6+10]
- 3. Define Structure and write the general format for declaring and accessing structure members with an example. [16]
- 4. (a) Define tree and binary tree. Explain in detail.
  - (b) Define graph and its terms. Explain in detail.

[8+8]

- 5. (a) What are the advantages of using pointers?
  - (b) Explain static memory allocation.

[8+8]

- 6. Explain the operation of sequential access file, mention its advantage and disadvantage with example. [16]
- 7. (a) Write a 'C' program to find radius of circle.
  - (b) Write a 'C' program to find area of circle.

[8+8]

8. Write an algorithm for routine  $merge\{x,lb1,ub1,ub2\}$  that assumes that x[lb1] through x[ub1] and x[ub1+1] through x[ub2] are sorted and merges the two into x[lb1] through x[ub2]. [16]

Code No: R07A1EC04

R07

Set No. 4

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Code No: R07A1EC04

R07

Set No. 1

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