

**B.Tech I Year(R07) Supplementary Examinations, May/June 2010****C PROGRAMMING AND DATA STRUCTURES**

(Common to Civil Engineering, Electrical & Electronic Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Chemical Engineering, Electronics & Instrumentation Engineering, Bio-Medical Engineering, Information Technology, Electronics & Control Engineering, Computer Science & Systems Engineering, Electronics & Computer Engineering and Bio-Technology)

**Time: 3 hours****Max Marks: 80**

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

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1. (a) Define Algorithm .  
(b) What is the use of flowchart ?  
(c) What are the different steps followed in the program development? [3+3+10]
2. What are the four different storage classes available in C explain with an example? [16]
3. Write short notes on pointers with an example. [16]
4. Define Structure and write the general format for declaring and accessing members. [16]
5. Write a program to copy data from one file to another file line by line . [16]
6. Write a program for searching mechanism whose worst case time complexity is  $O(\log n)$  . [16]
7. Write a program to illustrate the various operations of singly linked list . [16]
8. Write an algorithm to perform deletion operation in a Binary Search Tree. [16]

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