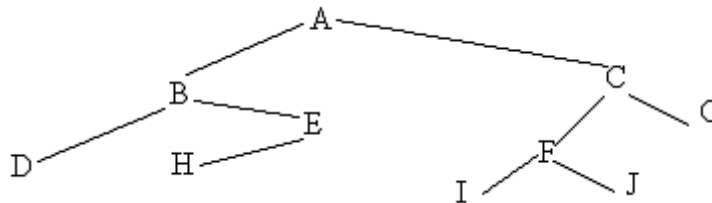


II B.Tech II Semester Supplementary Examinations, April/May 2005
DATA STRUCTURES THROUGH C
(Common to Electrical & Electronic Engineering, Electronics &
Communication Engineering, Chemical Engineering, Bio-Medical
Engineering, Electronics & Telematics and Metallurgy & Material
Technology)

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

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Define a structure. Write an example by initialization, assigning, declaring, and passing.
(b) Write a program to find the inverse of the given matrix 3X3 matrix.
2. (a) What are the advantages of linked list representation over linear representation.
(b) Write a C program to multiply two given polynomials.
3. (a) What is a stack? What are the operations done on stack?
(b) Write a C program to convert the given infix expression to postfix expression.
4. (a) How do you represent binary tree using pointers?
(b) Find preorder and post order traversal for the following:



5. (a) What are the advantages of heap sort?
(b) Write a C program to sort the given numbers using bubble sort.
(c) Explain hashing functions with examples.
6. (a) Write a C program to find number of words in the given file.
(b) Write a C program to add two given polynomials.
7. (a) Distinguish between stacks and queues.
(b) What is threaded binary tree? Give various applications of trees.
(c) Write a C function to perform delete operation on binary search tree.
8. Write short notes on any TWO of the following:

- (a) Multilinked structures
- (b) Spanning tress
- (c) Circular queues.

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