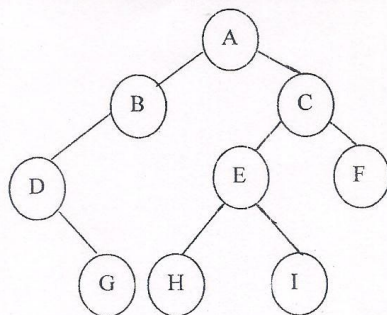


**Goa Vidyaprasarak Mandal's**  
**GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE & ECONOMICS**  
PONDA-GOA  
B.C.A (SEMESTER – II) EXAMINATION , MARCH/APRIL 2014  
**DATA STRUCTURES**

**Duration: 2 Hrs**

**Marks: 50**

- 
- Q.1) Define the following terms. (5x2=10)
- i. Queue.
  - ii. Header node.
  - iii. Graph.
  - iv. AVL Tree.
  - v. Linear doubly linked list .
- Q.2.A) Write C implementation for push(s,x) function. (2)
- Q.2.B) Explain the primitive operations performed on Queue Data structure. (3)
- Q.2.C) Write a C program to concatenate two linked list. (5)
- Q.3.A) What is getnode() operation. (2)
- Q.3.B) Discuss the efficiency of QuickSort. (3)
- Q.3.C) Explain Merge Sort. (5)
- Q.4.A) Write C implementation for maketree(x) function. (2)
- Q.4.B) Write preorder,inorder and postorder traversals for the following tree. (3)



Contd...2/-

- Q.4.C. Write a C program to validate an expression for parenthesis using stack. (5)
- Q.5.A. Write an algorithm to implement Left Rotation(p). (2)
- Q.5.B. what is B-Tree. (3)
- Q.5.C. implement primitive operations of a graph . (5)

-----Good Luck -----

