

**BACHELOR OF COMPUTER APPLICATIONS
(Pre-Revised)**

02524

Term-End Examination

December, 2014

**CS-62 : 'C' PROGRAMMING AND DATA
STRUCTURES**

Time : 2 hours

Maximum Marks : 60

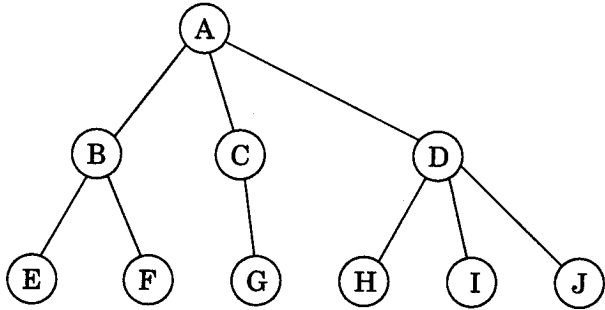
Note : *Question number 1 is compulsory and carries 30 marks. Answer any three questions from the rest. All algorithms should be written nearer to 'C' language.*

1. (a) Write an algorithm for the multiplication of two matrices. 10

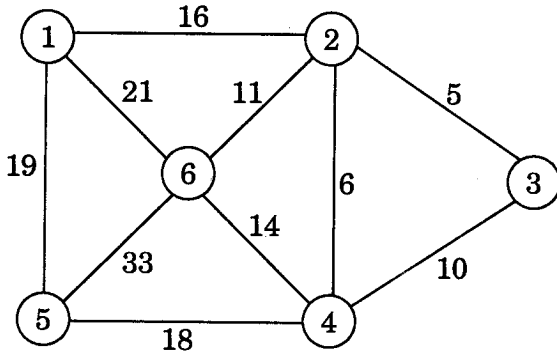
- (b) What is a Queue ? What operations are associated with a queue ? 10

- (c) Write an algorithm for the implementation of a Singly Linked List. 10

2. (a) Define "Tree". 2
- (b) Convert the following Tree into a Binary Tree : 8



3. (a) Draw the Minimum Cost Spanning Tree and indicate the minimum cost for the following graph : 8



- (b) What is meant by Breadth First Search ? 2
4. (a) Sort the following numbers using Bubble Sort in ascending order : 5
- 50, 45, 60, 33, 15, 95
- (b) Explain Random File Organization. 5

5. (a) Write an algorithm to convert an infix expression to postfix expression. 5
- (b) Write any five disadvantages/advantages of a Linear Queue over a Circular Queue. 5
-

