Multiple choice Questions

Q.1 An adjacency matrix representation cannot have information of-

(A) Parallel Edges
(B) Direction of edges
(C) Edges
(D) Nodes

RIGHT ANSWER: (A)

Q.2 Say we have a complete graph with 4 vertices then the total number of spanning trees would be-

(A) 4
(B) 16
(C) 3
(D) 9

RIGHT ANSWER: (B)

[for a complete graph with n nodes we have $n^{(n-2)}$ spanning trees]

Q.3 which of the following statement is/are False-

(A) A Binary Tree is a full binary tree if every node has 0 or 2 children.
(B) A Binary Tree is a complete Binary Tree if all the levels are completely filled except possibly the last level and the last level has all keys as left as possible
(C) A Perfect Binary Tree of height h (where height is the number of nodes on the path from the root to leaf) has 2^h node [^ is for power].
(D) A Binary tree is a Perfect Binary Tree in which all the internal nodes have two children and all leaf nodes are at the same level.

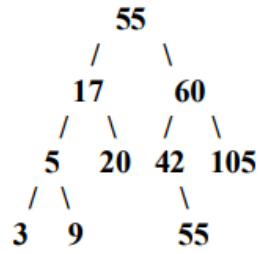
RIGHT ANSWER: (C)

Q.4 Suppose that we have numbers between 1 and 100 in a binary search tree and want to search for the number 55. Which of the following sequences CANNOT be the sequence of nodes examined?

(A) {10, 75, 64, 43, 60, 57, 55}
(B) {90, 12, 68, 34, 62, 45, 55}
(C) {9, 85, 47, 68, 43, 57, 55}
(D) {79, 14, 72, 56, 16, 53, 55}

RIGHT ANSWER: (C)

Q.5 Is this a binary search tree?



(A) Yes
(B) No

RIGHT ANSWER: (B)