1. Which data structure allows deleting data elements from front and inserting at rear?

a. Stacks

b. Queues **************

c. Deques

d. Binary search tree

2. Identify the data structure which allows deletions at both ends of the list but insertion at only one end.

a. Input-restricted deque **********

b. Output-restricted deque

c. Priority queues

d. None of above

3. Which of the following data structure is non-linear type?

a. Strings

b. Lists

c. Stacks

d. None of above **********

4.Which of the following data structure is linear type?

a. Strings

b. Lists

c. Queues

d. All of above ************

5.To represent hierarchical relationship between elements, which data structure is suitable?

a. Deque

b. Priority

c.Tree **********

d. All of above

6. A binary tree whose every node has either zero or two children is called

a. Complete binary tree

b. Binary search tree ************   Full Binary Tree

c.Extended binary tree

d. None of above

7.The depth of a complete binary tree is given by

a. Dn = n log2n

b. Dn = n log2n+1

c. Dn = log2n

d. Dn = log2n+1 ************

8.When representing any algebraic expression E which uses only binary operations in a 2-tree,

a. the variable in E will appear as external nodes and operations in internal nodes ************

b. the operations in E will appear as external nodes and variables in internal nodes

c. the variables and operations in E will appear only in internal nodes

d. the variables and operations in E will appear only in external nodes

9. A binary tree can easily be converted into q 2-tree

a. by replacing each empty sub tree by a new internal node

b. by inserting an internal nodes for non-empty node

c. by inserting an external nodes for non-empty node

d. by replacing each empty sub tree by a new external node ************

10. When converting binary tree into extended binary tree, all the original nodes in binary tree are

a. internal nodes on extended tree***********

b. external nodes on extended tree

c. vanished on extended tree

d. None of above

11. The post order traversal of a binary tree is DEBFCA. Find out the pre order traversal

a. ABFCDE

b. ADBFEC

c. ABDECF **********

d. ABDCEF

12. Which of the following sorting algorithm is of divide-and-conquer type?

a. Bubble sort

b. Insertion sort

c. Quick sort *******

d. All of above

13. An algorithm that calls itself directly or indirectly is known as

a. Sub algorithm

b. Recursion***********

c. Polish notation

d. Traversal algorithm

14. In a binary tree, certain null entries are replaced by special pointers which point to nodes higher in the tree for efficiency. These special pointers are called

a. Leaf

b. branch

c. path

d. thread**********

15. The in order traversal of tree will yield a sorted listing of elements of tree in

a. Binary trees

b. Binary search trees ************

c. Heaps

d. None of above

16.In a Heap tree

a. Values in a node is greater than every value in left sub tree and smaller than right sub tree

b. Values in a node is greater than every value in children of it ****************

c. Both of above conditions applies

d. None of above conditions applies

17. In a graph if e=[u, v], Then u and v are called

a. endpoints of e

b. adjacent nodes

c. neighbors

d. all of above*******

18. A connected graph T without any cycles is called

a. a tree graph

b. free tree

c. a tree

d. All of above **********

19. In a graph if e=(u, v) means

a. u is adjacent to v but v is not adjacent to u

b. e begins at u and ends at v

c. u is processor and v is successor

d. both b and c***********

20. If every node u in G is adjacent to every other node v in G, A graph is said to be

a. isolated

b. complete ************

c. finite

d. strongly connected