50+ Pairing Heap (Data Structure) MCQs with FREE PDF

1. Which node contains a pointer to its parent?

a) root node

b) right most child

c) left most child

d) left sibling

Answer: left most child

2. What is the basic operation performed in a pairing heap?

a) merge

b) deletion

c) insertion

d) swapping

Answer: merge

3. If there are c children of the root, how many calls to the merge procedure is required to reassemble the heap?

a) c

b) c+1

c) c-1

d) 1

Answer: c-1

4. Which of the following methods is the best choice for complex applications?

a) binary heap

b) d-heap

c) treap

d) pairing heap

Answer: pairing heap

5. Pairing heaps time complexity was inspired by that of?

a) splay tree

b) treap

c) red-black tree

d) avl tree

Answer: splay tree

6. The roots of the elements of the subtrees are smaller than the root of the heap.
a) True

b) False

Answer: False

7. The amortized time efficiency for performing deletion of a minimum element is?
a) O(N)

b) O(log N)

c) O(N2)

d) O(M log N)

Answer: O(log N)

8. Out of the following given options, which is the fastest algorithm?
a) fibonacci heap

b) pairing heap

c) d-ary heap

d) binary heap

Answer: fibonacci heap

9. What is the run time efficiency of an insertion algorithm?
a) O(N)

b) O(log N)

c) O(N2)

d) O(M log N)

Answer: O(N)

10. What is the reason for the efficiency of a pairing heap?
a) simplicity

b) time-efficient

c) space-efficient

d) advanced

Answer: simplicity