Data Structure Objective Questions and Answers

Question: 1

Which of the following data structure is more appropriate to represent a heap?

(A) Two-dimensional array
(B) Doubly linked list
(C) Linear Array
(D) Linked list

View Answer

Ans: C

Linear Array

Question: 2

Minimum number of fields in each node of a doubly linked list is _____

(A) 2
(B) 3
(C) 4
(D) None of the above

View Answer

Ans: B

3

Question: 3

A graph in which all vertices have equal degree is known as _____

(A) Complete graph
(B) Regular graph
(C) Multi graph
(D) Simple graph

View Answer

Ans: A
Complete graph
Question: 4

A vertex of in-degree zero in a directed graph is called a/an

(A) Root vertex
(B) Isolated vertex
(C) Sink
(D) Articulation point

View Answer
Ans: C
Sink
Question: 5

A graph is a tree if and only if graph is

(A) Directed graph
(B) Contains no cycles
(C) Planar
(D) Completely connected

View Answer
Ans: B
Contains no cycles
Question: 6

The average case complexity of quick sort for sorting n numbers is

(A) $O(n_2)$
(B) $O(nlog_2n)$
(C) O(n)
(D) $O(log_2n)$

View Answer
Ans: B
$O(nlog_2n)$
Question: 7

A dequeue operation removes an element

(A) From the front of the queue
(B) From any place in the queue

(C) From the rear of the queue
(D) None of above
View Answer
Ans: A
From the front of the queue
Question: 8
What is the minimum number of nodes in a complete binary tree with depth 3?
(A) 4
(B) 5
(C) 6
(D) 7
View Answer
Ans: A
4
Question: 9
What is the number of nodes in a full binary tree with depth 3?
(A) 5
(B) 6
(C) 7
(D) 8
View Answer
Ans: C
7
Question: 10
Which of the following operation is not supported by a queue?
(A) Inserting element at rear
(B) Removing element from front
(C) Removing element from middle
(D) None of above
View Answer
Ans: C
Removing element from middle