

Dsa Questions:

1. What is a data structure?

- a) A programming language
- b) A collection of algorithms
- c) A way to store and organize data
- d) A type of computer hardware

Answer: c) A way to store and organize data

2. What are the disadvantages of arrays?

- a) Index value of an array can be negative
- b) Elements are sequentially accessed
- c) Data structure like queue or stack cannot be implemented
- d) There are chances of wastage of memory space if elements inserted in an array are lesser than the allocated size

Answer: d) There are chances of wastage of memory space if elements inserted in an array are lesser than the allocated size

3. Which data structure is used for implementing recursion?

- a) Stack
- b) Queue
- c) List
- d) Array

Answer: a) Stack

4. The data structure required to check whether an expression contains a balanced parenthesis is?

- a) Queue
- b) Stack
- c) Tree
- d) Array

Answer: b) Stack

5. Which of the following is not the application of stack?

- a) Data Transfer between two asynchronous process
- b) Compiler Syntax Analyzer
- c) Tracking of local variables at run time
- d) A parentheses balancing program

Answer: a) Data Transfer between two asynchronous process

6. What is the advantage of a hash table as a data structure?

- a) easy to implement
- b) faster access of data
- c) exhibit good locality of reference
- d) very efficient for less number of entries

Answer: b) faster access of data

7. Which type of data structure is a ternary heap?

- a) Hash
- b) Array
- c) Priority Stack
- d) Priority Queue

Answer: d) Priority Queue

8. What is a dequeue?

- a) A queue implemented with both singly and doubly linked lists
- b) A queue with insert/delete defined for front side of the queue

- c) A queue with insert/delete defined for both front and rear ends of the queue
- d) A queue implemented with a doubly linked list

Answer: c) A queue with insert/delete defined for both front and rear ends of the queue

9. A data structure in which elements can be inserted or deleted at/from both ends but not in the middle is?

- a) Priority queue
- b) Dequeue
- c) Circular queue
- d) Queue

Answer: b) Dequeue

10. What is the output of the following Java code?

```
public class array
{
    public static void main(String args[])
    {
        int []arr = {1,2,3,4,5};
        System.out.println(arr[2]);
        System.out.println(arr[4]);
    }
}
```

- a) 4 and 2
- b) 2 and 4
- c) 5 and 3
- d) 3 and 5

Answer: d) 3 and 5