

DSA - LAB MCQs Exam

English ▼

Result..

| | |
|---------------------|----|
| Total Score - | 35 |
| Correct Answer - | 35 |
| Wrong Answer - | 35 |
| Total Attempt- | 70 |
| Total Not Attempt - | 0 |

Your performance

[← Dashboard \(https://www.parikshado.com/oldwebsite/dashboard\)](https://www.parikshado.com/oldwebsite/dashboard)

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which of the given options provides the increasing order of asymptotic complexity of functions f_1, f_2, f_3 and f_4 ?

$$f_1(n) = 2^n$$

$$f_2(n) = n^{3/2}$$

$$f_3(n) = n \log n$$

$$f_4(n) = n^{\log n}$$

- 1 ☒ f_3, f_2, f_4, f_1 ✓
- 2 ☐ f_3, f_2, f_1, f_4
- 3 ☐ f_2, f_3, f_1, f_4
- 4 ☐ f_2, f_3, f_4, f_1

Solution -

f3,f2,f4,f1

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From following which is not the operation of data structure?

- 1 ☒ Operations that manipulate data in some way ✓
- 2 ☐ Operations that perform a computation
- 3 ☐ Operations that check of syntax errors
- 4 ☐ Operations that monitor an object for the occurrence of a controlling event

Solution -

Operations that manipulate data in some way

3 of 70

Complete the following code if the function implements bubble sort, to sort elements in ascending order.

```
public static void bubbleSort(int arr ){  
    int n=arr.length;  
    for(int i=0;i {  
        for(int j=1;j<(n-i);j++) {  
            if(arr[j-1]>arr[j]) {  
                _____//code goes here  
            }  
        }  
    }  
}
```

- ☐ int temp= arr[i];
arr[j+1]=arr[j];
- 1 ☐ arr[j]=temp;

☐ int temp=arr[j-1];

arr[j-1]=arr[j];

2

arr[j]=temp;



☐ int temp=arr[i-1];

arr[i-1]=arr[j];

3

arr[i]=temp;

☐ int temp =arr[i-1];

arr[i-1]=arr[j];

4

arr[j]=temp;

Solution -

```
int temp=arr[j-1];
```

```
arr[j-1]=arr[j];
```

```
arr[j]=temp;
```

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If you want to store the name and marks of N students, which of the following is the correct choice?

1

☒ An array of structures that contains names and marks as a field ✓

2

☐ Astructure containing arrays of Names and arrays of Marks

3

☐ An array of names and an Array of marks

4

☐ All of the above

Solution -

An array of structures that contains names and marks as a field

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The time complexity of merge sort algorithm is

1

☐ O(n)

- 2 ☐ $O(\log n)$
- 3 ☐ $O(n^2)$
- 4 ☐ $O(n \log n)$ ✓

Solution -

$O(n \log n)$

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What are the time complexities of finding the 8th element from the beginning and the 8th element from the end in a singly linked list? Let n be the number of nodes in a linked list, you may assume that $n > 8$.

- 1 ☐ $O(1)$ and $O(n)$ ✓
- 2 ☐ $O(1)$ and $O(1)$
- 3 ☐ $O(n)$ and $O(1)$
- 4 ☐ $O(n)$ and $O(n)$

Solution -

$O(1)$ and $O(n)$

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Which of the following algorithm design techniques is used in finding all pairs of shortest distances in a graph ?

- 1 ☐ Dynamic programming ✓
- 2 ☐ Back Tracking
- 3 ☐ Greedy

4 ☐ Divide & Conquer

Solution -

Dynamic programming

8 of 70

If already sorted array is passed to a sorting algorithm, which one will be the slowest?

1 ☐ Insertion Sort ✓

2 ☐ Selection Sort

3 ☐ Heap Sort

4 ☐ Merge Sort

Candidate

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Solution -

Time Left

Insertion Sort 00:00:00

Question palette

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Let 'm' and 'n' be the number of edges and vertices in a graph G, respectively.

Which of the following is the time complexity of Kruskal's algorithm to find the minimum spanning tree of G?

1 ☐ $O(n \log n)$

2 ☐ $O(m \log m)$ ✓

3 ☐ $O(n^2)$

4 ☐ $O(m^2)$

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25

Solution - $O(m \log m)$ **10 of 70**

Which one of the following is an application of queue data structure

- 1 ☐ When a resource is shared among multiple consumers.
- 2 ☐ When a data is transferred asynchronously
- 3 ☐ Load Balancing
- 4 ☒ All the above ✓

Solution -

All the above

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Which node pointer should be updated a new node is to be inserted in the middle of a Creden of a doubly linked list?

- 1 ☐ Next Pointer of A. Previous Pointer of B, Next Painter of C and previous pointer of C
- 2 ☒ Next Pointer of A. Previous Pointer of B, Next Pointer of B and previous pointer of C ✓
- 3 ☐ Next Pointer of A, Previous pointer of A next pointer of B and previous pointer of C
- 4 ☐ None of the above

Solution -

Next Pointer of A. Previous Pointer of B, Next Pointer of B and previous pointer of C

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onsider the stack shown below:

12 11 34 56 5 45 4 45

Top

After performing the following operations in sequence, which value will be at the top of the stack?

Pop,pop,pop,push 29, push 30,pop,pop,pop

- 1 ☐ 29
- 2 ☐ 30
- 3 ☐ 5
- 4 ☒ 56 ✓

Solution -

56

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A complete n-ary tree is a tree in which each node has n children or no children.

Let I be the number of internal nodes and L be the number of leaves in a complete n-ary tree. If $L = 41$, and $I = 10$, what is the value of n ?

- 1 ☐ 6
- 2 ☐ 3
- 3 ☐ 4

4 ☐ 5 ✓

Solution -

5

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The height of a binary tree is the maximum number of edges in any root-to-leaf path. The maximum number of nodes in a binary tree of height is_____

- 1 ☐ $2^h - 1$
- 2 ☐ $2^{h-1} - 1$
- 3 ☐ $2^{h+1} - 1$ ✓
- 4 ☐ 2^{h+1}

Solution -

$2^{h+1} - 1$

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We use a dynamic programming approach when:

- 1 ☐ We need an optimal solution
- 2 ☐ The solution has an optimal substructure ✓
- 3 ☐ The given problem can be reduced to the 3-SAT problem
- 4 ☐ It's faster than Greedy

Solution -

The solution has an optimal substructure

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The value returned by Hash Function is called as:

- 1 ☐ Digest
- 2 ☐ Hash value
- 3 ☐ Hash code
- 4 ☐ All of these ✓

Solution -

All of these

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Which of the following is recursive preorder traversal function, if class node is defined as follows?

```
class Node {  
    int data;  
    Node left, right;  
    public Node(int key) {  
        data=key;  
        left=right = null;  
    }  
}
```

- ☐ void preorder(Node node) {
 if(node== null)
 return;
 System.out.print(node.data + " >");
 Preorder(node. Left);
 preorder(node.right);

1 } ✓

☐ void preorder(Node node){
 if(node!= null
 return;
 System.out.print(node.data + " >");
 Preorder(node. Left);
 preorder(node.right);

2 }

☐ void preorder(Node node){
 if(node!= null

3 return;

4 ☐ none

Solution -

```
void preorder(Node node) {
if(node= = null)
return;
System.out.print(node.data + " >");
Preorder(node. Left);
preorder(node.right);
}
```

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Consider the following undirected graph with edge weights as shown:

at a4

09 a2 ao

a4 09

at at 0.4

as a4

The number of minimum-weight spanning trees of the graph is_____

1 ☐ In adjacency list representation, space is saved for sparse graphs.

2 ☐ In adjacency list representation, space is saved for sparse graphs.

3 ☐ Adding a vertex in adjacency list representation is easier than adjacency matrix representation.

4 ☒ All of the above ✓

Solution -

All of the above

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What is the time complexity of the following code: `int a = 0, i = N;`
`while (i > 0)`

```
{  
  a += i;  
  i /= 2;  
}
```

- 1 ☐ $O(N)$
- 2 ☐ $O(\sqrt{N})$
- 3 ☐ $O(N/2)$
- 4 ☒ $O(\log N)$ ✓

Solution -

$O(\log N)$

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The recurrence relation capturing the optimal time of the Tower of Hanoi problem with n discs is

- 1 ☒ $T(n) = 2T(n-1) + 1$ ✓
- 2 ☐ $T(n) = 2T(n-1) + n$
- 3 ☐ $T(n) = 2T(n/2) + 1$
- 4 ☐ $T(n) = 2T(n-1) + 1$

Solution -

$$T(n) = 2T(n-2) + 2$$

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Which of the following is FALSE about B/B+ tree

- 1 ☐ B/B+ trees grow upward while Binary Search Trees grow downward
- 2 ☐ Time complexity of search operation in B/B+ tree is better than Red Black Trees in general.
- 3 ☐ Number of child pointers in a B/B+ tree node is always equals to number of keys in it plus one.
- 4 ☐ A B/B+ tree is defined by a term minimum degree. And minimum degree depends on hard disk block size, key and address sizes.

Solution -

Time complexity of search operation in B/B+ tree is better than Red Black Trees in general.

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An ADT is defined to be a mathematical model of a user-defined type along with the collection_____of all operations on that model.

- 1 ☐ Cardinality
- 2 ☐ Assignment
- 3 ☒ Primitive ✓
- 4 ☐ Structure

Solution -

Primitive

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Which of the following algorithm can be used to efficiently sort a linked list?

- 1 ☒ Merge Sort ✓
- 2 ☐ Quick Sort
- 3 ☐ Heap Sort
- 4 ☐ Selection Sort

Solution -

Merge Sort

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What does the following return? Public int getval (Bnode T)

```
{ //T=root node
int value =0;
if(T)
{ //LC= Left child and RC right child
If((T.L.C)== NULL) && (T.RC)== NULL))
value -1;
else
value= value+ getval(T.LC)+ getval(.TRC);
}
return value;
}
```

- 1 ☐ Number of internal nodes in the tree
- 2 ☐ height of the tree

- 3 ☒ Number of nodes without right sibling in the tree ✓
- 4 ☐ Number of leaf nodes in the tree

Solution -

Number of nodes without right sibling in the tree

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Which of the following data structure is BEST suited to implement LRU Cache?

- 1 ☐ Array
- 2 ☐ Binary Tree
- 3 ☒ Doubly Linked List ✓
- 4 ☐ Graph

Solution -

Doubly Linked List

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The integrity of transmitted data can be verified by using:

- 1 ☒ Message Authentication Code (MAC) ✓
- 2 ☐ Timestamp comparison
- 3 ☐ Data length comparison
- 4 ☐ None of these

Solution -

Message Authentication Code (MAC)

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In Hash Table, which collision handling technique results in Secondary Clustering?

- 1 ☐ Mid-Square
- 2 ☒ Quadratic Probing ✓
- 3 ☐ Linear Probing
- 4 ☐ Folding

Solution -

Quadratic Probing

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Which of the following is the advantage of the array data structure?

- 1 ☐ Elements of mixed data types can be stored
- 2 ☒ Easier to access the elements in an array ✓
- 3 ☐ Index of the first elements starts from 1
- 4 ☐ Elements of an array cannot be sorted

Solution -

Easier to access the elements in an array

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Which one of the following is an application of Stack Data Structure?

- 1 ☐ Managing function calls
- 2 ☐ The stock span problem
- 3 ☐ Arithmetic expression evaluation
- 4 ☐ All of the above ✓

Solution -

All of the above

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A tree node with no children is called a:

- 1 ☐ Leaf node ✓
- 2 ☐ Root node
- 3 ☐ Parent node
- 4 ☐ Ancestor node

Solution -

Leaf node

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You are very hungry and you decide to bake a batch by following your grandmother's chocolate chip cookie recipe. Which of the following computational thinking skills required to complete the abovetask?

- 1 ☐ Abstraction

- 2 ☒ Algorithm Design ✓
- 3 ☐ Pattern Recognition
- 4 ☐ Decomposition

Solution -

Algorithm Design

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Depth First Search graph traversal method makes use of data structure.

- 1 ☐ Tree
- 2 ☒ Stack ✓
- 3 ☐ Queue
- 4 ☐ Linked list

Solution -

Stack

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Create a Binary search tree for the given set of strings: MAR, MAY, NOV,AUG,APR, JAN, DEC,JULY,FEB,JUNE,OCT,SEPT What are the leaf nodes generated in the tree?

- 1 ☒ APR, FEB DEC, JULY, SEPT ✓
- 2 ☐ FEB JUNE, SEPT
- 3 ☐ can't create the tree

4 ☐ None of the above

Solution -

APR, FEB DEC, JULY, SEPT

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In Computational thinking terms, breaking down a complex problem into smaller, more specific sub-problems is called as_____.

1 ☐ Problem Identification

2 ☐ Decomposition ✓

3 ☐ Pattern Recognition

4 ☐ Algorithmic Thinking

Solution -

Decomposition

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Which is the safest method to choose a pivot element?

1 ☐ Choosing a random element as a pivot

2 ☐ Choosing the first element as a pivot

3 ☐ Choosing the last element as a pivot

4 ☐ Median-of-three partitioning method ✓

Solution -

Median-of-three partitioning method

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Which of the following algorithms solves the all-pair shortest path algorithm?

- 1 ☐ Prim's algorithm
- 2 ☐ Dijkstra's algorithm
- 3 ☐ Bellman-Ford algorithm
- 4 ☒ Floyd-Warshall's algorithm ✓

Solution -

Floyd-Warshall's algorithm

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In which of the following tree do the height of the left subtree and the height of the right subtree differ at most by one?

- 1 ☒ AVL Tree ✓
- 2 ☐ Expression Tree
- 3 ☐ Threaded Binary Tree
- 4 ☐ Binary Search Tree

Solution -

AVL Tree

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Which one of the following is the tightest upper bound that represents the time complexity of inserting an object into a binary search tree of n nodes?

- 1 ☐ $O(1)$
- 2 ☐ $O(\log n)$
- 3 ☒ $O(n)$ ✓
- 4 ☐ $O(n \log n)$

Solution -

$O(n)$

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What is the maximum height of any AVL tree with 7 nodes? Assume that the height of a tree with single node is 0.

- 1 ☒ 2 ✓
- 2 ☐ 3
- 3 ☐ 4
- 4 ☐ 5

Solution -

2

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A digraph is said to be COMPLETE, if it has N vertices andedges.

- 1 ☐ $N*N$
- 2 ☐ $N-1$
- 3 ☒ $N*(N-1)$ ✓

4 ☐ $N*(N-1)/2$

Solution -

$N*(N-1)$

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How many numbers of comparisons will be done in worst case using Binary Search the

1 ☐ 10

2 ☐ 2

3 ☐ 5

4 ☒ 4 ✓

Solution -

4

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Let $G = (V, E)$ be a weighted undirected graph and let T be a Minimum Spanning Tree (MST) of G maintained using adjacency lists. Suppose a new weighed edge $(u, v) \in V \times V$ is added to G . The worst-case time complexity of determining if T is still an MST of the resultant graph is

1 ☐ $\theta(E + |V|)$

2 ☐ $\theta(E \cdot |V|)$

3 ☐ $\theta(E \log |V|)$

4 ☒ $\theta(|V|)$ ✓

Solution -

theta($\log n$)

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Which of the following data structure is BEST suited to implement Priority Queue?

- 1 ☐ Doubly Linked List
- 2 ☒ Heap ✓
- 3 ☐ Queue using Linked List
- 4 ☐ Array

Solution -

Heap

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Which of the following is NOT an example of balanced Binary Search Tree?

- 1 ☒ Threaded Binary Tree ✓
- 2 ☐ AVL Tree
- 3 ☐ Red-black Tree
- 4 ☐ Splay Tree

Solution -

Threaded Binary Tree

45 of 70

Consider the following type declaration for a doubly linked list node

```
class DListNode{
int data;
DListNode prev
DListNode next;
}
```

Which of the following statements (in correct order) will correctly insert a newNode node. before the node referenced by current? Assume that current is neither first nor last node in the linked list.

- ☐ newNode.next current; current.prev
newNode; newNode prev current prev;
- 1** ☐ current. prev.next = newNode;
- ☐ current.prev= = newNode;
newNode.next= current; newNode.
prev=current .prev;
- 2** ☐ current. prev.next = newNode;
- ☐ newNode. prev =current.prev;
newNode.next =current;
current. Prev. next= newNode;
- 3** ☐ current.next.prev= newNode; ✓
- ☐ newNode prev = current. Prev;
newNode.next= current; current.
Prev.next= newNode; current.prev=
- 4** ☐ newNode;

Solution -

```
newNode. prev =current.prev;
newNode.next =current;
current. Prev. next= newNode;
current.next.prev= newNode;
```

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If the list is a circular linked list, with first points to the first node and temp points to the last node. Which of the following code snippet will delete a node, which is after temp? class Node {
int data;


```
Node next;  
}
```

- 1 ☐ mynode=first mynode.next=temp.next; mynode.next=first;
- 2 ☐ mynode=first temp.next=mynode; mynode.next=first
- 3 ☐ temp.next=first. next; mynode=first; first=first.next; mynode. next=null
- 4 ☒ None of the above ✓

Solution -

None of the above

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Suppose a circular queue of capacity $(n - 1)$ elements is implemented with an array of n elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, $\text{REAR} = \text{FRONT} = 0$. The conditions to detect queue full and queue empty are

- 1 ☒ Full: $(\text{REAR}+1) \bmod n == \text{FRONT}$, empty: $\text{REAR} == \text{FRONT}$ ✓
- 2 ☐ Full: $(\text{REAR}+1) \bmod n == \text{FRONT}$, empty: $(\text{FRONT}+1) \bmod n == \text{REAR}$
- 3 ☐ Full: $\text{REAR} == \text{FRONT}$, empty: $(\text{REAR}+1) \bmod n == \text{FRONT}$
- 4 ☐ Full: $(\text{FRONT}+1) \bmod n == \text{REAR}$, empty: $\text{REAR} == \text{FRONT}$

Solution -

Full: $(\text{REAR}+1) \bmod n == \text{FRONT}$, empty: $\text{REAR} == \text{FRONT}$

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How many Stacks are required to implement Queue data structure?

- 1 ☐ 5
- 2 ☐ 1
- 3 ☒ 2 ✓
- 4 ☐ 3

Solution -

2

49 of 70

Which of the following algorithm can be used to detect negative cycle in a Graph?

- 1 ☐ Prim
- 2 ☐ Kruskal
- 3 ☐ Dijkstra
- 4 ☒ Bellman Ford ✓

Solution -

Bellman Ford

50 of 70

What is the worst case possible height of AVL tree?

- 1 ☐ $2\log n$ Assume base of log is 2
- 2 ☒ $1.44\log n$ Assuming base of log is 2 ✓
- 3 ☐ Depends upon implementation

4 ☐ theta(n)

Solution -

1.44Log n Assuming base of log is 2

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Which of the following types of Linked List support forward and backward traversal?

- 1 ☐ Singly Linked List
- 2 ☒ Doubly Linked List ✓
- 3 ☐ Circular Singly Linked List
- 4 ☐ All of these

Solution -

Doubly Linked List

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Let $A[1...n]$ be an array of n distinct numbers.
If $i < j$ and $A[i] > A[j]$, then the pair (i, j) is called an inversion of A . What is the expected number of inversions in any permutation on n elements?

- 1 ☐ $n(n-1)/2$
- 2 ☒ $n(n-1)/4$ ✓
- 3 ☐ $n(n+1)/4$
- 4 ☐ $2n \lceil \log n \rceil$

Solution -

$n(n-1)/4$

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Suppose the numbers 7, 5, 1, 8, 3, 6, 0, 9, 4, 2 are inserted in that order into an initially empty binary search tree. The binary search tree uses the usual ordering on natural numbers. What is the in-order traversal sequence of the resultant tree?

- 1 ☐ 7 5 1 0 3 2 4 6 8 9
- 2 ☐ 0 2 4 3 1 6 5 9 8 7
- 3 ☒ 0 1 2 3 4 5 6 7 8 9 ✓
- 4 ☐ 9 8 6 4 2 3 0 1 5 7

Solution -

0 1 2 3 4 5 6 7 8 9

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Using _____ in java, one can sort the arrays.

- 1 ☐ System.sort()
- 2 ☐ Collection.sort()
- 3 ☐ Arrays.sort()
- 4 ☒ Array.sort() ✓

Solution -

Array.sort()

55 of 70

A hash function h defined $h(\text{key}) = \text{key} \bmod 7$, with linear probing, is used to insert the keys 44, 45, 79, 55, 91, 18, and 63 into a table indexed from 0 to 6. What will be the location of key 18?

- 1 ☐ 3
- 2 ☐ 4
- 3 ☒ 5 ✓
- 4 ☐ 6

Solution -

5

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Which algorithm strategy builds up a solution by choosing the option that looks the best at every step?

- 1 ☒ Greedy method ✓
- 2 ☐ Branch and bound
- 3 ☐ Dynamic programming
- 4 ☐ Divide and conquer return count

Solution -

Greedy method

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If a node has K children in B tree, then the node contains exactly keys.

- 1 ☐ K?
- 2 ☒ K-1 ✓
- 3 ☐ K+1
- 4 ☐ VK

Solution -

K-1

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What is the best way to go for the game-playing problem?

- 1 ☐ Optimal Search
- 2 ☐ Random Search
- 3 ☒ Heuristic Search ✓
- 4 ☐ Stratified Search

Solution -

Heuristic Search

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A program P reads in 500 integers in the range [0..100] representing the scores of 500 students. It then prints the frequency of each score above 50. What would be the best way for P to store the frequencies?

- 1 ☒ an array of 50 numbers ✓
- 2 ☐ an array of 100 numbers
- 3 ☐ an array of 500 numbers

- 4 ☐ a dynamically allocated of 550 numbers

Solution -

an array of 50 numbers

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The Inorder traversal of _____ will yield a sorted listing of elements.

- 1 ☐ Binary trees
- 2 ☒ Binary search trees ✓
- 3 ☐ Heaps
- 4 ☐ AVL Trees

Solution -

Binary search trees

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What is the worst case time complexity of Search() operation in an unbalanced Binary Search Tree having 'n' nodes?

- 1 ☐ $O(1)$
- 2 ☐ $O(\log n)$
- 3 ☒ $O(n)$ ✓
- 4 ☐ $O(n \log n)$

Solution -

$O(n)$

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Which of the following uses queue as data structure to store data?

- 1 ☒ Waiting queue for railway reservation system ✓
- 2 ☐ To check whether given string is palindrome
- 3 ☐ Display string in reverse order
- 4 ☐ DFS traversal of the tree

Solution -

Waiting queue for railway reservation system

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Which data structure is required to convert the infix to prefix notation?

- 1 ☒ Stack ✓
- 2 ☐ Linked List
- 3 ☐ Binary Tree
- 4 ☐ Queue

Solution -

Stack

64 of 70

An algorithm that calls itself directly or indirectly is known as_____

- 1 ☐ Sub algorithm
- 2 ☒ Recursive algorithms ✓
- 3 ☐ Polish notation
- 4 ☐ Traversal algorithm

Solution -

Recursive algorithms

65 of 70

Which of the following options is not true about the Binary Search Tree?

- 1 ☒ The value of the left child should be less than the root node. ✓
- 2 ☐ The value of the right child should be greater than the root node
- 3 ☐ The left and the right sub trees should also be a binary search tree
- 4 ☐ None of the above

Solution -

The value of the left child should be less than the root node.

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The time required to search an element in a linked list of length is_____.

- 1 ☐ $O(\log n)$
- 2 ☒ $O(n)$ ✓
- 3 ☐ $O(1)$

4 ☐ O(n?)

Solution -

O(n)

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is a collision-resolution scheme that searches the hash table for an unoccupied location beginning with the original location that the hash function specifies and continuing at increments of 1^2 , 2^2 , 3^2 , and so on.

1 ☐ Linear probing

2 ☐ Double hashing

3 ☒ Quadratic probing ✓

4 ☐ Separate chaining

Solution -

Quadratic probing

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singly linked list if head points to the first node, which of the following code will print data in last node?

☐ Temp=head;
while(temp!=null) {
temp=temp.next;
}

1 ☐ System.out.println(temp.data)

☐ temp=head;
while(temp.next!=null){
temp=temp.next;
{

2 System.out.println(temp.data); ✓

☐ Temp=head;
while(temp.next==null) {
temp=temp.next;
}

3 System. Out. println(temp.data);

☐ Temp=head;

4 while(temp==null){

Solution -

```
temp=head;  
while(temp.next!=null){  
temp=temp.next;  
{  
System.out.println(temp.data);
```

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What is time complexity of the following code? int sum=0;

```
for (int i = 0; i < n; i++) {  
sum=sum+10;  
for (int j = 0; j < n; j++) {  
sum=sum + j;  
break;  
}  
}
```

1 ☐ $O(n^2)$

2 ☒ $O(n)$ ✓

3 ☐ $O(1)$

4 ☐ $O(\log n)$

Solution -

$O(n)$

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What is the best-case time complexity of Bubble sort to sort an array of 'n' elements?

- 1 ☐ $O(n^2)$
- 2 ☐ $O(n \log n)$
- 3 ☐ $O(1)$
- 4 ☒ $O(n)$ ✓

Solution -

$O(n)$