

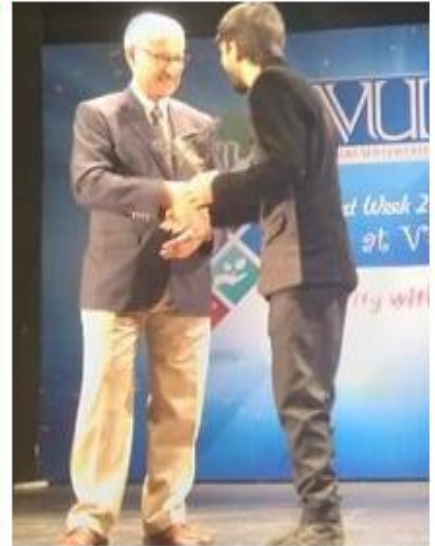
السلام عليكم الله ورحمته وبركاته

الله " وَتَعَزَّزْ مَنْ تَشَاءُ وَتَذَلَّ مَنْ تَشَاءُ "

الله " جسے جاہے عزت دے اور جسے جاہے قلیل کرے "

JUST PRAY FOR ME

REGARD : RIZWAN MANZOOR



Cs-301 Important Macq's For Final Term

Solve By Vu Topper RM

What's app 03224021365

Paid Tasks = LMS Handling + Online Classes + Project

Which one of the following is NOT the property of equivalence relation:

- ▶ Reflexive
- ▶ Symmetric
- ▶ Transitive ▶

Associative (Page 385)

Which of the following is not true regarding the maze generation?

- ▶ Randomly remove walls until the entrance and exit cells are in the same set.
- ▶ Removing a wall is the same as doing a union operation.
- ▶ **Remove a randomly chosen wall if the cells it separates are already in the same set. (page 424)**
- ▶ Do not remove a randomly chosen wall if the cells it separates are already in the same set.

The expression `if(!heap->is empty ())` Checks

- a) Heap is empty
- b) Heap is not empty**

What is the best definition of a collision in a hash table?

- ▶ Two entries are identical except for their keys.
- ▶ **Two entries with different keys have the same exact hash value. (page 464)**

Heap can be used to implement

- a. Stack
- b. Linked list
- c. Priority queue**

Which one of the following is NOT true regarding the skip list?

- ▶ Each list S_i contains the special keys $+\infty$ and $-\infty$.
- ▶ List S_0 contains the keys of S in non-decreasing order.
- ▶ **List S_h contains only the n special keys. (page 446)**

Which of the following heap method lowers the value of key at position 'p' by the amount 'delta'?

Select correct option:

increaseKey(p,delta)

decreaseKey(p,delta)

preculateDown(p,delta)

remove(p,delta)

Question # 2 of 10 (Start time: 06:51:48 PM) Total Marks: 1

Which of the following statement is NOT correct regarding Table ADT?

Select correct option:

In a table, the type of information in columns may be different.

A table consists of several columns, known as entities.

The row of a table is called a record.

A major use of table is in databases where we build and use tables for keeping information.

Question # 3 of 10 (Start time: 06:53:30 PM) Total Marks: 1

The total number of nodes on 10th level of a perfect binary tree are :

Select correct option:

256

512

1024

Can't be determined

Question # 4 of 10 (Start time: 06:54:21 PM) Total Marks: 1

Which of the following heap method increase the value of key at position 'p' by the amount 'delta'?

Select correct option:

increaseKey(p,delta)

decreaseKey(p,delta)

preculateDown(p,delta)

remove(p,delta)

Question # 5 of 10 (Start time: 06:54:44 PM) Total Marks: 1

Which of the following is NOT true regarding the maze generation?

Select correct option:

Randomly remove walls until the entrance and exit cells are in the same set.

Removing a wall is the same as doing a union operation.

Remove a randomly chosen wall if the cells it separates are already in the same set.

Do not remove a randomly chosen wall if the cells it separates a

Question # 6 of 10 (Start time: 06:55:30 PM) Total Marks: 1

If ahmad is boss of ehsan and ehsan is boss of umer then ahmad is also boss of umer. The above mentioned relation is _____.

Select correct option:

Reflexive

Symmetry

Transitive

None of given

Question # 7 of 10 (Start time: 06:56:38 PM) Total Marks: 1

Consider a min heap, represented by the following array:

11,22,33,44,55 After inserting a node with value 66.Which of the following is the updated min heap?

Select correct option:

11,22,33,44,55,66

11,22,33,44,66,55

11,22,33,66,44,55

11,22,66,33,44,55

Question # 8 of 10 (Start time: 06:57:34 PM) Total Marks: 1

Which of the following is NOT an implementation of Table ADT?

Select correct option:

Sorted Sequential Array

Stack

Linked List

Skip List

Question # 9 of 10 (Start time: 06:57:56 PM) Total Marks: 1

If Ahmed is cousin of Ali and Ali is cousin of Asad then Ahmed is also cousin of Asad. This statement has the following property

Select correct option:

Reflexivity

Symmetry

Transitivity

All of the above

Question # 10 of 10 (Start time: 07:00:36 PM) Total Marks: 1

The expression `if (! heap->isEmpty())` checks

Select correct option:

Heap is empty

Heap is full

Heap is not empty

Not a valid expression

Consider a max heap, represented by the following array; 40,30,20,10,15,16,17,18,4
After inserting a nodes with value 35.Which of following is the updated max heap?

40,30,20,10,15,16,17,8,4,35

40,30,20,10,35,16,17,8,4,15

40,35,20,10,30,16,17,8,4,15

40,35,20,10,15,16,17,18,4,30

A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a Link) _____ Successor.

Preorder

Inorder

Postorder

Leveloder

Which of the following is a property of binary tree?

A Binary tree with N internal nodes has $2+N$ links, N-1 links to internal nodes and N+1 links to external nodes

A Binary tree with N internal nodes has $2*N$ links, N-1 links to internal nodes and N+1 links to external nodes.

A Binary tree with N internal nodes has $2-N$ links, N-1 links to internal nodes and N+1 links to external nodes.

A Binary tree with N internal nodes has $2N$ links, N+1 links to internal nodes and N-1 links to external nodes.

A Threaded Binary tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) _____ successor.

Preoder

Inorder

Postorder

Levelorder

If there are 56 internal nodes in a binary tree then how many external nodes this binary tree will have?

54

55

56

57

Which of the following statement is correct?

A threaded Binary tree is a binary tree in which every node that does not have a left child has a THREAD (in actual sense, a link) to its INORDER successor.

A threaded Binary tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its PREORDER successor.

A threaded Binary tree is a binary tree in which every node that does not have a left child has a THREAD (in actual sense, a link) to its INORDER successor.

A threaded Binary tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its POSTORDER predecessor.

It is necessary for Huffman encoding tree to be,

AVL tree

Binary tree

Complete binary Tree

None of these

A binary tree with 45 internal nodes has _____ links to external nodes.

44

45

46

90

In which of the following tree, parent nodes has key greater than or equal to its both children?

Max heap

Binary search tree

Threaded Binary tree

Complete Binary tree

If one pointer of the nodes in a binary tree is NULL then it will be a/an

Inner node

Leaf node

External node

Root node

If there are N external nodes in a binary tree then what will be the no. of the internal nodes in this binary tree?

N-1

N

N+1

N+2

See the below code and fill the appropriate answer for? Void

fastInorder(TreeNod+p) {while((p->nextInorder(p)) != ?) cout << p->getInfo();}

Dummy

rootNode

LTH

RTH

In threaded binary tree, the NULL pointers are replaced by the.

Preorder successor or Predecessor

Inorder successor or predecessor

Postorder successor or predecessor
NULL pointer are not replaced

In which of the following tree, parent nodes has a key greater than or equal to its both children?

Max heap
Binary search tree
Threaded Binary tree
Complete Binary tree

In Complete binary tree the bottom level is filled from _____:

Left to right
Right to left
Not filled at all
None of the given options

If the bottom level of a binary tree is NOT completely filled, depicts that the tree is NOT a _____

Complete Binary tree
Threaded Binary Tree
Expression tree
Perfectly complete Binary tree

If an expression tree is correct then its root should have,

An operator
(
)
an operand

In threaded binary tree, the NULL pointers are replaced by the.

Preorder successor or predecessor
Inorder successor or predecessor
Postorder successor or predecessor
NULL pointer are not replaced

A complete binary tree is a tree that is _____ filled, with the possible exception of the bottom level.

Partially
Completely
Incompletely
Partly

If the bottom level of a binary tree is not completely filled, depicts that the tree is not a _____:

Expression tree
Threaded binary tree
Complete binary tree
Perfectly complete binary tree

An expression tree will always be a,

Complete binary tree

Binary search tree

Heap AVL tree

Which of the following is a property of binary tree?

A binary tree of N external nodes has N internal node

A Binary tree of N internal nodes has N+1 external node

A Binary tree of N external nodes has N+1 internal node

A Binary tree of N internal has N-1 external node

In a threaded binary tree which nodes have NULL child pointers,

All leaf nodes

Nodes other than leaf nodes

Root Node

None of the nodes

In threaded binary tree, the NULL pointers are replaced by the

preorder successor or predecessor

inorder successor or predecessor

postorder successor or predecessor

NULL pointers are not replaced

A complete binary tree is a tree that is _____ filled, with the possible exception of the bottom level.

partially

completely

incompletely

partly

Which one of the following is TRUE about iteration?

Iterative function calls consumes a lot of memory

Threaded Binary Trees use the concept of iteration

Iteration extensively uses stack memory

Recursion is more efficient than iteration

We implement the heap by _____ .

Threaded Tree

AVL tree

Complete binary tree

Expression

Which of the following statement concerning heaps is NOT true?

Traversing a heap in order provides access to the data in numeric or alphabetical order.

Removing the item at the top provides immediate access to the key value with highest (or lowest) priority.

Inserting an item is always done at the end of the array, but requires maintaining the heap

property.

A heap may be stored in an array.

Which of the following statement concerning heaps is NOT true?

A heap can be stored in a binary search tree.

A heap can be stored in an array.

A heap can be used to implement a priority queue.

A heap can be used to sort data.

A complete binary tree is a tree that is _____ filled, with the possible exception of the bottom level.

partially

completely

incompletely

partly

By using _____ we avoid the recursive method of traversing a Tree, which makes use of stacks and consumes a lot of memory and time.

Binary tree only

Heap data structure

Huffman encoding

A binary tree with N internal nodes has _____ links, _____ links to internal nodes and _____ links to external nodes.

2N, N-1, N+1

N-1, 2N, N+1

N+1, 2N, N-1

N+1, N-1, 2N

If a binary tree has N + 1 external nodes then, It has N internal nodes.

It has N-1 internal nodes.

It has N/2 internal nodes.

It has N+2 internal nodes.

A binary tree with 45 internal nodes has _____ links to external nodes.

44

45

46

90

Consider a binary tree, represented by the following array: 10,7,9,5,2,1,6,3,4 This is a _____.

Min heap

Max heap (Not Sure)

Threaded binary tree

Binary Search tree

Consider a binary tree, represented by the following array: A,B,C,D,E,F,G,I Is it a strictly binary tree ?

Yes

No

In threaded binary tree the NULL pointers are replaced by the
preorder successor or predecessor
inorder successor or predecessor
inorder successor or predecessor
NULL pointers are not replaced

Consider a binary tree, represented by the following array: A,B,C,D,E,F,G,H,I,J,K,L
Is it a strictly binary tree?

Yes
No

We implement the heap by _____ .

Threaded Tree
AVL tree

Complete binary tree
Expression

If there are 56 internal nodes in a binary tree then how many external nodes this
binary tree will have?

- ▶ 54
- ▶ 55
- ▶ 56
- ▶ **57**

Which of the following statements is correct property of binary trees?

- ▶ A binary tree with N internal nodes has N+1 internal links.
- ▶ A binary tree with N external nodes has 2N internal nodes.
- ▶ **A binary tree with N internal nodes has N+1 external nodes.**
- ▶ None of above statement is a property of the binary tree.

Which of the following is a property of binary tree?

- ▶ A binary tree of N external nodes has N internal node.
- ▶ **A binary tree of N internal nodes has N+ 1 external node.**
- ▶ A binary tree of N external nodes has N+ 1 internal node.
- ▶ A binary tree of N internal nodes has N- 1 external node.

Which of the following statement is true about dummy node of threaded binary
tree?

- ▶ The left pointer of dummy node points to the itself while the right pointer points to the root of tree.
- ▶ **The left pointer of dummy node points to the root node of the tree while the right pointer points itself i.e. to *dummy* node**
- ▶ The left pointer of dummy node points to the root node of the tree while the right pointer is always NULL.
- ▶ The right pointer of dummy node points to the itself while the left pointer is always NULL.

If the bottom level of a binary tree is NOT completely filled, depicts that the tree is
NOT a

- ▶ Expression tree

- ▶ Threaded binary tree
- ▶ **complete Binary tree**
- ▶ Perfectly complete Binary tree

Which of the following statement is correct about find(x) operation:

- ▶ A find(x) on element x is performed by returning exactly the same node that is found.
- ▶ A find(x) on element x is performed by returning the root of the tree containing x.
- ▶ A find(x) on element x is performed by returning the whole tree itself containing x.
- ▶ A find(x) on element x is performed by returning TRUE.

If there are 23 external nodes in a binary tree then what will be the no. of internal nodes in this binary tree?

- ▶ 23
- ▶ 2
- ▶ 21
- ▶ **22**

If there are N external nodes in a binary tree then what will be the no. of internal nodes in this binary tree?

- ▶ **N -1**
- ▶ N+1
- ▶ N+2
- ▶ N

Which of the following statement is correct?

- ▶ A Threaded Binary Tree is a binary tree in which every node that does not have a left child has a THREAD (in actual sense, a link) to its INORDER successor.
- ▶ A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its PREORDER successor.
- ▶ **A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its INORDER successor.**
- ▶ A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its POSTORDER successor.

-

By using _____ we avoid the recursive method of traversing a Tree, which makes use of stacks and consumes a lot of memory and time.

- ▶ Binary tree only
- ▶ **Threaded binary tree**
- ▶ Heap data structure
- ▶ Huffman encoding

Consider a min heap, represented by the following array:

10,30,20,70,40,50,80,60

After inserting a node with value 31. Which of the following is the updated min heap?

- ▶ 10,30,20,31,40,50,80,60,70
- ▶ 10,30,20,70,40,50,80,60,31
- ▶ 10,31,20,30,40,50,80,60,31
- ▶ 31,10,30,20,70,40,50,80,60

In complete binary tree the bottom level is filled from _____:

- ▶ Left to right
- ▶ Right to left
- ▶ Not filled at all
- ▶ None of the given options

In case of deleting a node from AVL tree, rotation could be prolonged to the root node.

- ▶ Yes
- ▶ No

When an array of object is created dynamically then there is no way to provide parameterized constructors for array of objects.

True

False

Which of the following method is helpful in creating the heap at once?

insert

add

update

precalculateDown

Which one of the following is not true regarding skip list.

Each list S_i contain the special key + infinity and -infinity

List S_0 contain the key of S is non-decreasing order

List S_h contain only the n special keys

Each list is a sub sequence of previous list one

If Ahmad is cousin of Ali and Ali is cousin of Asad then Ahmad is also cousin of Asad the statement has the following property.

Reflexivity

Symmetry

Transitivity

All of the above

Heap can be use to implement

Stack

Link list

Queue

Priority Queue

The preclateDown procedure will move the smaller value_____ and bigger value_____.

Select correct option:

left,right

right,left

up,down

down,up

Which property of equivalence relation is satisfied if we say: Ahmad R(is related to) Ahmad

Select correct option:

Reflexivity

Symmetry

Transitivity

All of the above

If MyClass has a destructor what is the destructor named?

Select correct option:

MyClass

~MyClass

My~Class

MyClass~

- A real world object can be transformed into programming entity by defining its respective

Select correct option:

ClassFunction

Only states

Only behaviour

Which of the following features of OOP is used to deal with only relevant details?

Select correct option:

Abstraction

Information hiding

Object

Inheritance

In class, attributes and behaviour is represented by:

Select correct option:

Member functions, data members

Member functions, scope of data members

Data members, member functions

None of the given

- Using encapsulation we can achieve

Select correct option:

Information hiding

Least interdependencies among modules

Implementation independence

All of given options

Which of the following is true regarding the maze generation?

Select correct option:

Randomly remove walls until the entrance and exit cells are in the same set

Removing a wall is the same as doing a union operation

Do not remove a randomly chosen wall if the cells it separates are already in the same set

All of the given

Question # 2 of 10 (Start time: 08:42:13 PM) Total Marks: 1

If a tree has 50 nodes, then the total edges/links in the tree will be :

Select correct option:

55

51

50

49

Question # 3 of 10 (Start time: 08:42:32 PM) Total Marks: 1

The preculatDown procedure will move the smaller value_____ and bigger value_____.

Select correct option:

left,right

right,left

up,down

down,up

Question # 4 of 10 (Start time: 08:42:56 PM) Total Marks: 1

If the height of a perfect binary tree is 4. What will be the total number of nodes in it?

Select correct option:

15

16

31

32

Question # 5 of 10 (Start time: 08:43:12 PM) Total Marks: 1

If we want to find 3rd minimum element from an array of elements, then after applying buildHeap method, how many times deleteMin method will be called ?

Select correct option:

1

2

3

4

Question # 6 of 10 (Start time: 08:44:31 PM) Total Marks: 1

Which one of the following is NOT true regarding the skip list?

Select correct option:

Each list S_i contains the special keys + infinity and - infinity

List S_0 contains the keys of S in non-decreasing order

List S_h contains only the n special keys

Each list is a subsequence of the previous one

Question # 7 of 10 (Start time: 08:45:13 PM) Total Marks: 1

Which of the following heap method increase the value of key at position 'p' by the amount 'delta'?

Select correct option:

increaseKey(p,delta)

decreaseKey(p,delta)

preculatDown(p,delta)

remove(p,delta)

Question # 8 of 10 (Start time: 08:45:30 PM) Total Marks: 1

The total number of nodes on 10th level of a perfect binary tree are :

Select correct option:

256

512

1024

Can't be determined

Question # 9 of 10 (Start time: 08:45:52 PM) Total Marks: 1

We can build a heap in _____ time.

Select correct option:

Linear

Exponential

Polynomial

None of the given options

Question # 10 of 10 (Start time: 08:46:05 PM) Total Marks: 1

Which of the following method is helpful in creating the heap at once?

Select correct option:

insert

add

update

preculatDown

Which one of the following operations returns top value of the stack?

▶ Push

▶ **Pop**

▶ Top

▶ First

Question No: 2 (Marks: 1) - Please choose one

Compiler uses which one of the following in Function calls,

▶ Stack

▶ Queue

▶ **Binary Search Tree**

▶ AVL Tree

Question No: 3 (Marks: 1) - Please choose one

Every AVL is _____

▶ Binary Tree

▶ Complete Binary Tree

▶ None of these

▶ **Binary Search Tree**

Question No: 4 (Marks: 1) - Please choose one

If there are 56 internal nodes in a binary tree then how many external nodes this binary tree will have?

▶ 54

▶ 55

▶ 56

▶ 57

Question No: 5 (Marks: 1) - Please choose one

If there are 23 external nodes in a binary tree then what will be the no. of internal nodes in this binary tree?

▶ 23

▶ 24

▶ 21

▶ 22

Question No: 6 (Marks: 1) - Please choose one

Which one of the following is not an example of equivalence relation?

▶ Electrical connectivity

▶ Set of people

- ▶<= relation
- ▶Set of pixels

Question No: 7 (Marks: 1) - Please choose one

Binary Search is an algorithm of searching, used with the _____ data.

- ▶Sorted
- ▶Unsorted
- ▶Heterogeneous
- ▶Random

Question No: 8 (Marks: 1) - Please choose one

Which one of the following is NOT true regarding the skip list?

- ▶Each list S_i contains the special keys + infinity and - infinity.
- ▶List S_0 contains the keys of S in non-decreasing order.
- ▶Each list is a subsequence of the previous one.
- ▶List S_h contains only the n special keys.

Question No: 9 (Marks: 1) - Please choose one

A simple sorting algorithm like selection sort or bubble sort has a worst-case of

- ▶ $O(1)$ time because all lists take the same amount of time to sort
- ▶ $O(n)$ time because it has to perform n swaps to order the list.
- ▶ $O(n^2)$ time because sorting 1 element takes $O(n)$ time - After 1 pass

through the list,

either of these algorithms can guarantee that 1 element is sorted.

- ▶ $O(n^3)$ time, because the worst case has really random input which takes longer to

sort.

Question No: 10 (Marks: 1) - Please choose one

Which of the following is a property of binary tree?

- ▶A binary tree of N external nodes has N internal node.
- ▶**A binary tree of N internal nodes has $N+ 1$ external node.**
- ▶A binary tree of N external nodes has $N+ 1$ internal node.
- ▶A binary tree of N internal nodes has $N- 1$ external node.

Question No: 11 (Marks: 1) - Please choose one

By using _____ we avoid the recursive method of traversing a Tree, which makes use of stacks and consumes a lot of memory and time.

- ▶Binary tree only
- ▶**Threaded binary tree**
- ▶Heap data structure
- ▶Huffman encoding

Question No: 12 (Marks: 1) - Please choose one

Which of the following statement is true about dummy node of threaded binary tree?

- ▶ This dummy node never has a value.
- ▶ This dummy node has always some dummy value.
- ▶ **This dummy node has either no value or some dummy value.**
- ▶ This dummy node has always some integer value.

Question No: 13 (Marks: 1) - Please choose one

For a perfect binary tree of height h , having N nodes, the sum of heights of nodes is

- ▶ $N - (h - 1)$
- ▶ **$N - (h + 1)$**
- ▶ $N - 1$
- ▶ $N - 1 + h$

Question No: 14 (Marks: 1) - Please choose one

What is the best definition of a *collision* in a hash table?

- ▶ Two entries are identical except for their keys.
- ▶ **Two entries with different data have the exact same key**
- ▶ Two entries with different keys have the same exact hash value.
- ▶ Two entries with the exact same key have different hash values.

Question No: 15 (Marks: 1) - Please choose one

Which formula is the best approximation for the depth of a heap with n nodes?

- ▶ **\log (base 2) of n**
- ▶ The number of digits in n (base 10), e.g., 145 has three digits
- ▶ The square root of n
- ▶ n

Question No: 16 (Marks: 1) - Please choose one

Which of the following statement is NOT correct about find operation:

▶ It is not a requirement that a find operation returns any specific name, just that finds on two elements return the same answer if and only if they are in the same set.

▶ One idea might be to use a tree to represent each set, since each element in a tree has the same root, thus the root can be used to name the set.

▶ Initially each set contains one element.

▶ **Initially each set contains one element and it does not make sense to make a tree of one node only.**

Question No: 17 (Marks: 1) - Please choose one

Which of the following is not true regarding the maze generation?

▶ Randomly remove walls until the entrance and exit cells are in the same set.

▶ Removing a wall is the same as doing a union operation.

▶ **Remove a randomly chosen wall if the cells it separates are already in the same set.**

▶ Do not remove a randomly chosen wall if the cells it separates are already in the same set.

Question No: 18 (Marks: 1) - Please choose one

In threaded binary tree the NULL pointers are replaced by ,

- ▶ preorder successor or predecessor
- ▶ **inorder successor or predecessor**
- ▶ postorder successor or predecessor
- ▶ NULL pointers are not replaced

Question No: 19 (Marks: 1) - Please choose one

Which of the given option is NOT a factor in Union by Size:

- ▶ Maintain sizes (number of nodes) of all trees, and during union.
- ▶ Make smaller tree, the subtree of the larger one.
- ▶ **Make the larger tree, the subtree of the smaller one.**
- ▶ Implementation: for each root node i , instead of setting $parent[i]$ to -1 , set it to $-k$ if tree rooted at i has k nodes.

Question No: 20 (Marks: 1) - Please choose one

Suppose we had a hash table whose hash function is " $n \% 12$ ", if the number 35 is already in the hash table, which of the following numbers would cause a collision?

- ▶ 144
- ▶ 145
- ▶ **143**
- ▶ 148

Question No: 21 (Marks: 1) - Please choose o

What requirement is placed on an array, so that *binary search* may be used to locate an entry?

- ▶ The array elements must form a heap.
- ▶ The array must have at least 2 entries.
- ▶ **The array must be sorted.**
- ▶ The array's size must be a power of two

Question No: 22 (Marks: 1) - Please choose one

A binary tree with 24 internal nodes has _____ external nodes.

- ▶ 22
- ▶ 23
- ▶ 48
- ▶ **25**

Question No: 23 (Marks: 1) - Please choose on

In case of deleting a node from AVL tree, rotation could be prolong to the *root* node.

- ▶ **Yes**
- ▶ No

Question No: 24 (Marks: 1) - Please choose one

when we have declared the size of the array, it is not possible to increase or decrease it during the _____ of the program.

- ▶ Declaration

- ▶ Execution
- ▶ Defining
- ▶ None of the above

Question No: 25 (Marks: 1) - Please choose one
it will be efficient to place stack elements at the start of the list because insertion and removal take _____ time.

- ▶ Variable
- ▶ Constant
- ▶ Inconsistent
- ▶ None of the above

Question No: 26 (Marks: 1) - Please choose one
_____ is the stack characteristic but _____ was implemented because of the size limitation of the array.

- ▶ isFull(),isEmpty()
- ▶ pop(), push()
- ▶ isEmpty() , isFull()
- ▶ push(),pop()

During union by size method, which data structure is used to improve the balancing of tree?
 Select correct option:

- Array**
- Stack
- Linked List
- Tree

If the height of a perfect binary tree is 4. What will be the total number of nodes in it?
 Select correct option:

- 15
- 16**
- 31
- 32

Question # 2 of 10 (Start time: 07:30:11 PM) Total Marks: 1

The preLuateDown procedure will move the smaller value_____ and bigger value_____.

- Select correct option:
- left,right
 - right,left
 - up,down**
 - down,up

Question # 3 of 10 (Start time: 07:30:48 PM) Total Marks: 1

If there are 100 elements in a heap, and 100 deleteMin operation are performed, will get _____ list

- Select correct option:
- Sorted
 - Unsorted
 - Nonlinear**
 - None of given

Question # 4 of 10 (Start time: 07:31:12 PM) Total Marks: 1

If Ahmed is cousin of Ali and Ali is cousin of Asad then Ahmed is also cousin of Asad. This statement has the

following property
Select correct option:
Reflexivity
Symmetry
Transitivity

Question # 5 of 10 (Start time: 07:31:42 PM) Total Marks: 1

Suppose there are 100 elements in an equivalence class, so initially there will be 100 trees. The collection of these trees is called _____.

Select correct option:

Cluster
Class
Forest
Bunch

Question # 6 of 10 (Start time: 07:32:04 PM) Total Marks: 1

If we want to find median of 50 elements, then after applying buildHeap method, how many times deleteMin method will be called ?

Select correct option:

5
25
35
50

Question # 7 of 10 (Start time: 07:32:25 PM) Total Marks: 1

Which property of equivalence relation is satisfied if we say: Ahmad R(is related to) Ahmad

Select correct option:

Reflexivity
Symmetry
Transitivity
All of the above

Question # 8 of 10 (Start time: 07:32:50 PM) Total Marks: 1

A binary relation R over S is called an equivalence relation if it has following property(s)

Select correct option:

Reflexivity
Symmetry
Transitivity
All of the above

Question # 9 of 10 (Start time: 07:33:11 PM) Total Marks: 1

The total number of nodes on 5th level of a perfect binary tree are :

Select correct option:

16
15
31
32