TEST SUMMARY FOR : No name

Username : 12
Name : No name
Test Start Time :
Test End Time :
Test Duration : 0min 27sec
Score : 0
Remark : NORMAL

Question 1:
Which of these best describes an array?
Student answer :
""

Solution :
"A data structure that shows a hierarchical behavior"

Question 2:
How do you initialize an array in C?
Student answer :
""

Solution :
"int arr[3] = {1,2,3};"

Question 3:
Which of the following is a correct way to declare a multidimensional array in Java?
Student answer :
""

Solution :
"All of the mentioned"

Question 4:
What are the advantages of arrays?
Student answer :
""

Solution :
"All of the mentioned"

Question 5:
Assuming int is of 4bytes, what is the size of int arr[15];?
Student answer :
""

Solution :
"60"

Question 6:
A linear collection of data elements where the linear node is given by means of pointer is called?
Student answer :
""

Solution :
"Linked list"

Question 7:
In linked list each node contain minimum of two fields. One field is data field to store the data second field is?
Student answer :
""

Solution :
"Pointer to node"

Question 8:
Which of the following c code is used to create new node?
struct node
{
int data;
struct node * next;
}
typedef struct node NODE;
NODE *ptr;
Student answer :
""

Solution :
"ptr = (NODE*)malloc(sizeof(NODE));"

Question 9:
What kind of linked list is best to answer question like �What is the item at position n?�
Student answer :
""

Solution :
"Array implementation of linked list"

Question 10:
Linked lists are not suitable to for the implementation of?
Student answer :

""

Solution :
"Binary search"

Question 11:
Linked list is considered as an example of _____ type of memory allocation.
Student answer :
""

Solution :
"Dynamic"

Question 12:
In Linked List implementation, a node carries information regarding
Student answer :
""

Solution :
"Link"

Question 13:
Linked list data structure offers considerable saving in
Student answer :
""

Solution :
"Space Utilization and Computational Time"

Question 14:
What does the following function do for a given Linked List with first node as head?
void fun1(struct node* head)
{
if(head == NULL)
return;
fun1(head->next);
printf("%d ", head->data);
}
Student answer :
""

Solution :
"Prints all nodes of linked list in reverse order"

Question 15:
What is the output of following function for start pointing to first node of following linked list?
1->2->3->4->5->6
void fun(struct node* start)

```
{
if(start == NULL)
return;
printf("%d  ", start->data);
if(start->next != NULL )
fun(start->next->next);
printf("%d  ", start->data);
}
```

Student answer :
""

Solution :
"1 3 5 5 3 1"

Question 16:
You are given pointers to first and last nodes of a singly linked list, which of the following operations are dependent on the length of the linked list?

Student answer :
""

Solution :
"Delete the last element of the list"

Question 17:
Process of inserting an element in stack is called _____

Student answer :
""

Solution :
"Push"

Question 18:
Process of removing an element from stack is called _____

Student answer :
""

Solution :
"Pop"

Question 19:
Pushing an element into stack already having five elements and stack size of 5 , then stack becomes

Student answer :
""

Solution :
"Overflow"

Question 20:
Which of the following applications may use a stack?
Student answer :
""

Solution :
"Compiler Syntax Analyzer"

Question 21:
Entries in a stack are �ordered�. What is the meaning of this statement?
Student answer :
""

Solution :
"There is a Sequential entry that is one by one"

Question 22:
What is the value of the postfix expression 6 3 2 4 + � *:
Student answer :
""

Solution :
"Something between 15 and 100"

Question 23:
Here is an infix expression: 4 + 3*(6*3-12). Suppose that we are using the usual stack algorithm to convert the expression from infix to postfix notation. The maximum number of symbols that will appear on the stack AT ONE TIME during the conversion of this expression?
Student answer :
""

Solution :
"4"

Question 24:
The postfix form of the expression (A+ B)*(C*D- E)*F / G is?
Student answer :
""

Solution :
"AB+ CD*E � FG /**"

Question 25:
The postfix form of A*B+C/D is?
Student answer :
""

Solution :

"AB*CD/+"

Question 26:
Which data structure is needed to convert infix notation to postfix notation?
Student answer :
""

Solution :
"Stack"

Question 27:
Which data structure is used for implementing recursion?
Student answer :
""

Solution :
"Stack"

Question 28:
Convert the following Infix expression to Postfix form using a stack x + y * z + (p * q + r) * s,
Follow usual precedence rule and assume that the expression is legal.
Student answer :
""

Solution :
"xyz*+pq*r+s*+"

Question 29:
Consider the following operation performed on a stack of size 5.After the completion of all
operation, the number of elements present in stack are
Push(1);
Pop();
Push(2);
Push(3);
Pop();
Push(4);
Pop();
Pop();
Push(5);
Student answer :
""

Solution :
"1"

Question 30:
The type of expression in which operator succeeds its operands is?

Student answer :
""

Solution :
"Postfix Expression"

Question 31:
If the elements �A�, �B�, �C� and �D� are placed in a stack and are deleted one at a time, what is the order of removal?
Student answer :
""

Solution :
"DCBA"

Question 32:
Which of the following is false about a doubly linked list?
Student answer :
""

Solution :
"None of the mentioned"

Question 33:
What is a memory efficient double linked list?
Student answer :
""

Solution :
" Each node has only one pointer to traverse the list back and forth"

Question 34:
How do you calculate the pointer difference in a memory efficient double linked list?
Student answer :
""

Solution :
"pointer to previous node or pointer to next node"

Question 35:
Consider the following doubly linked list: head-1-2-3-4-5-tail What will be the list after performing the given sequence of operations?
Node temp = new Node(6,head,head.getNext());
Node temp1 = new Node(0,tail.getPrev(),tail);
head.setNext(temp);
temp.getNext().setPrev(temp);
tail.setPrev(temp1);

temp1.getPrev().setNext(temp1);
Student answer :
""

Solution :
"head-6-1-2-3-4-5-0-tail"

Question 36:
Consider the following doubly linked list: head-1-2-3-4-5-tail What will be the list after performing the given sequence of operations?
Node temp = new Node(6,head,head.getNext());
head.setNext(temp);
temp.getNext().setPrev(temp);
Node temp1 = tail.getPrev();
tail.setPrev(temp1.getPrev());
temp1.getPrev().setNext(tail);
Student answer :
""

Solution :
"head-6-1-2-3-4-tail"

Question 37:
What differentiates a circular linked list from a normal linked list?
Student answer :
""

Solution :
"You may or may not have the �next� pointer point to null in a circular linked list"

Question 38:
Which of the following application makes use of a circular linked list?
Student answer :
""

Solution :
"Allocating CPU to resources"

Question 39:
Which of the following is false about a circular linked list?
Student answer :
""

Solution :
"Time complexity of inserting a new node at the head of the list is O(1)"

Question 40:

Consider a small circular linked list. How to detect the presence of cycles in this list effectively?

Student answer :

""

Solution :

"Have fast and slow pointers with the fast pointer advancing two nodes at a time and slow pointer advancing by one node at a time"

Question 41:

Which of the following real world scenarios would you associate with a stack data structure?

Student answer :

""

Solution :

"piling up of chairs one above the other"

Question 42:

Which of the following array position will be occupied by a new element being pushed for a stack of size N elements(capacity of stack > N).

Student answer :

""

Solution :

"S[N]."

Question 43:

Which of the following properties is associated with a queue?

Student answer :

""

Solution :

"First In First Out"

Question 44:

In a circular queue, how do you increment the rear end of the queue?

Student answer :

""

Solution :

"(rear+1) % CAPACITY"

Question 45:

What is the need for a circular queue?

Student answer :

""

Solution :

"effective usage of memory"

Question 46:
In linked list implementation of a queue, where does a new element be inserted?
Student answer :
""

Solution :
"At the tail of the link list"

Question 47:
In linked list implementation of a queue, front and rear pointers are tracked. Which of these pointers will change during an insertion into a NONEMPTY queue?
Student answer :
""

Solution :
"Only rear pointer"

Question 48:
The essential condition which is checked before insertion in a linked queue is?
Student answer :
""

Solution :
"Overflow"

Question 49:
Which of the following is true about linked list implementation of queue?
Student answer :
""

Solution :
"In push operation, if new nodes are inserted at the beginning of linked list, then in pop operation, nodes must be removed from end"

Question 50:
What is a dequeue?
Student answer :
""

Solution :
"A queue with insert/delete defined for both front and rear ends of the queue"

Question 51:
The operations that needed to be performed are (You can perform only push and pop):
Consider you have a stack whose elements in it are as follows.

5 4 3 2 << top
Where the top element is 2.
You need to get the following stack
6 5 4 3 2 << top
Student answer :
""

Solution :
"Push(pop()), push(6), push(pop())"

Question 52:
You have two jars, one jar which has 10 rings and the other has none. They are placed one above the other. You want to remove the last ring in the jar. And the second jar is weak and cannot be used to store rings for a long time.
Student answer :
""

Solution :
"Empty the first jar by removing it one by one from the first jar and placing it into the second jar and empty the second jar by placing all the rings into the first jar one by one"

Question 53:
A data structure in which elements can be inserted or deleted at/from both the ends but not in the middle is?
Student answer :
""

Solution :
"Dequeue"

Question 54:
A normal queue, if implemented using an array of size MAX_SIZE, gets full when
Student answer :
""

Solution :
"Rear = MAX_SIZE - 1"

Question 55:
Which of the following statements are correct with respect to Singly Linked List(SLL) and Doubly Linked List(DLL)?
Student answer :
""

Solution :
"All of the mentioned"

Question 56:
Consider these functions:
push() : push an element into the stack
pop() : pop the top-of-the-stack element
top() : returns the item stored in top-of-the-stack-node
What will be the output after performing these sequence of operations
push(20);
push(4);
top();
pop();
pop();
pop();
push(5);
top();
Student answer :
""

Solution :
"5"

Question 57:
Minimum number of queues to implement stack is _____
Student answer :
""

Solution :
"1"

Question 58:
Given pointer to a node X in a singly linked list. Only one pointer is given, pointer to head node is not given, can we delete the node X from given linked list?
Student answer :
""

Solution :
"Possible if X is not last node"

Question 59:
You are given pointers to first and last nodes of a singly linked list, which of the following operations are dependent on the length of the linked list?
Student answer :
""

Solution :
"Delete the last element of the list"

Question 60:
The data structure required for BFS on a graph is ?

Student answer :
""

Solution :
"Queue"