

4. Data Structures with Algorithms (A)

Standalone assignment

CA- 2

Submissions

Here are your latest answers:

Question 1

For finding the number of characters in the given string which of these functions is used?

Response: strlen()

Correct answer: strlen()

Score: 1 out of 1 Yes

Question 2

In linked list each node contain minimum of two fields. One field is data field to store the data and what is the second field?

Response: Pointer to node

Correct answer: Pointer to node

Score: 1 out of 1 Yes

Question 3

A circular queue is implemented using an array of size 10. The array index starts with 0, front is 6, and rear is 9. The insertion of next element takes place at what index of an array?

Response: 0

Correct answer: 0

Score: 1 out of 1 Yes

Question 4

Which data structure is needed to convert infix notation to postfix notation?

Response: Stack

Correct answer: Stack

Score: 1 out of 1 Yes

Question 5

In which data structure element is inserted at one end and deleted at the same end?

Response: Stack

Correct answer: Stack

Score: 1 out of 1 Yes

Question 6

Which of the following is not suitable for implementing in linked list?

Response: Binary Search

Correct answer: Binary Search

Score: 1 out of 1 Yes

Question 7

Which of the following operations is performed more efficiently by doubly linked list than by singly linked list?

Response: Deleting a node whose location is given

Correct answer: Deleting a node whose location is given

Score: 1 out of 1 Yes

Question 8

Which of the following is the correct declaration of linked list?

Response: "struct node { int data; struct node *link; };"

Correct answer: "struct node { int data; struct node *link; };"

Score: 1 out of 1 Yes

Question 9

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

Response: Dequeue

Correct answer: Dequeue

Score: 1 out of 1 Yes

Question 10

Which of the following is not a applications of stack?

Response: Data transfer between two process

Correct answer: Data transfer between two process

Score: 1 out of 1 Yes

Question 11

How is the null character represented in C++?

Response: \0'

Correct answer: \0'

Score: 1 out of 1 Yes

Question 12

In linked list implementation of a queue, front and rear pointers are tracked. Which of these pointers will change during an insertion into EMPTY queue?

Response: Both front and rear pointer

Correct answer: Both front and rear pointer

Score: 1 out of 1 Yes

Question 13

Which of the following correctly declares an array?

Response: int array[10];

Correct answer: int array[10];

Score: 1 out of 1 Yes

Question 14

"Which of the following is not an inherent application of stack?

Response: Job scheduling

Correct answer: Job scheduling

Score: 1 out of 1 Yes

Question 15

"What kind of linked list is best to answer question like “What is the item at position n”?

Response: Array implementation of linked list

Correct answer: Array implementation of linked list

Score: 1 out of 1 Yes

Question 16

In linked list implementation of a queue, where does a new element will be inserted?

Response: At the tail of the link list

Correct answer: At the tail of the link list

Score: 1 out of 1 Yes

Question 17

Which of the following is used for comments in C++?

Response: /* comment */

Correct answer: Both // comment or /* comment */

Score: 0 out of 1 No

Question 18

Which of the following is used as the return-type in String operations?

Response: void, int and (char *) only"

Correct answer: void, int and (char *) only"

Score: 1 out of 1 Yes

Question 19

Which of the following statement(s) about stack data structure is NOT correct?

Response: Stack is the FIFO data structure

Correct answer: Stack is the FIFO data structure

Score: 1 out of 1 Yes

Question 20

"What is the output of the following code: int main() {
int a = 20;
printf("CINEMA ");
return 1;
printf("DINOSAUR ");
return 1;
}"

Response: CINEMA

Correct answer: CINEMA

Score: 1 out of 1 Yes

Question 21

"What is the output of the following : #include<stdio.h>
main()
{
int n;
n=f1(4);
printf("%d",n);
}
f1(int x)
{
int b;
if(x==1)
return 1;
else
b=x*f1(x-1);
return b;
}"

Response: 24

Correct answer: 24

Score: 1 out of 1 Yes

Question 22

How many subscript operators are in two dimensional array?

Response: Two subscripts

Correct answer: Two subscripts

Score: 1 out of 1 Yes

Question 23

Which of the following special symbol is allowed in a variable name?

Response: _ (underscore)

Correct answer: _ (underscore)

Score: 1 out of 1 Yes

Question 24

In doubly linked lists, which of the following is true, while performing the traversal operation?

Response: In both directions traversing is allowed

Correct answer: In both directions traversing is allowed

Score: 1 out of 1 Yes

Question 25

Which of the following is a variant of linked list in which last node of the list points to the first node of the list?

Response: Circular linked list

Correct answer: Circular linked list

Score: 1 out of 1 Yes

Question 26

If the elements “A”, “B”, “C” and “D” are placed in a queue and are deleted one at a time, in what order will they be removed?

Response: ABCD

Correct answer: ABCD

Score: 1 out of 1 Yes

Question 27

What is an alternative name for the circular queue from the following options?

Response: Ring buffer

Correct answer: Ring buffer

Score: 1 out of 1 Yes

Question 28

Which of the following is not a type of queue?

Response: Ordinary queue

Correct answer: Single ended queue

Score: 0 out of 1 No

Question 29

Which of the following is a sequence of characters that are treated as a single data item and terminated by a null character?

Response: String

Correct answer: String

Score: 1 out of 1 Yes

Question 30

Which of the following data structure is used to implement recursive function calls?

Response: Stacks

Correct answer: Stacks

Score: 1 out of 1 Yes

Question 31

What is the value of the postfix expression $6\ 3\ 2\ 4\ +\ -\ *?$

Response: -18

Correct answer: -18

Score: 1 out of 1 Yes

Question 32

What is the postfix form of the expression $(A + B) * (C * D - E) * F / G?$

Response: $AB + CD * E - FG / **$

Correct answer: $"AB + CD * E - *F *G / "$

Score: 0 out of 1 No

Question 33

If the MAX_SIZE is the size of the array used in the implementation of circular queue. How is rear manipulated while inserting an element in the queue?

Response: $rear = rear + (1 \% MAX_SIZE)$

Correct answer: $rear = (rear + 1) \% MAX_SIZE$

Score: 0 out of 1 No

Question 34

Which of the following is true about recursion?

Response: The principle of stack is FIFO

Correct answer: Recursion provides a clean and simple way to write code.

Score: 0 out of 1 No

Question 35

Which data structure would you mostly likely see in non recursive implementation of a recursive algorithm?

Response: Stack

Correct answer: Stack

Score: 1 out of 1 Yes

Question 36

"Which among the following is true for the variables?

Response: The variables can be defined only once

Correct answer: The variables can be defined only once

Score: 1 out of 1 Yes

Question 37

Which of the following is not an example of recursion?

Response: SFS

Correct answer: SFS

Score: 1 out of 1 Yes

Question 38

Which statement is true from the following options for prior using a pointer variable?

Response: It should be declared

Correct answer: It should be both declared or initialized

Score: 0 out of 1 No

Question 39

Which of the following is not a string inbuilt function?

Response: strlen()

Correct answer: strlen()

Score: 1 out of 1 Yes

Question 40

Which of the following is not a correct variable type?

Response: real

Correct answer: real

Score: 1 out of 1 Yes

Question 41

Which of the following is an user defined data type?

Response: Structures

Correct answer: Structures

Score: 1 out of 1 Yes

Question 42

What is the minimum number of stacks of required to implement a queue of size?

Response: Two

Correct answer: Two

Score: 1 out of 1 Yes

Question 43

Which among the following is an advantage of array?

Response: Easier to store elements of similar data type

Correct answer: Easier to store elements of similar data type

Score: 1 out of 1 Yes

Question 44

Which of the following problem cannot be solved using recursion?

Response: Problems without base case

Correct answer: Problems without base case

Score: 1 out of 1 Yes

Question 45

What is the name of the function when a function is called by itself, either directly or indirectly?

Response: Recursive function

Correct answer: Recursive function

Score: 1 out of 1 Yes