TEST 5 SET D PROGRAMMING LEVEL 1

What is the output of C Program with arrays?

12

1, 11

12

6

What is the output of the C Program?

10

11

12

Compiler Error

What will be the output of the below program?

void main()

char afl = "C++".

pnntf("%s ",a);

printf("%s",a);

++ ++

C++ C++

C++ ++

Compiler Error

What will be the output of the program?

void mamo

float = {12.4, 2.3, 4.5, 6.7};

pnntf("%d",

4

5

6

None of these

What is 'y' in the below program?

mt main()

typedef char

anfptr y;

return 0;

'x' is an array of three-pointers

'x' is a pointer

'x' is an array of three function pointers

Error in 'x' declaration

Consider the statement

int val[2] [4] = { 1, 2, 3, 4, 5, 6, 7, 8};

4 will be the value of

val[0][3]

vla[1][1]

val[0][4]

None of the above

What will be the output of the following program?

void mamo

char strl[] = "abcd";

char str2[] = "abcd";

if(str 1

pnntf("Equal");

Equal

Unequal

Error

None of the above

Which of the following statements are correct about the program below?

mt main()

mt Size, r;

scanf("%d", &size);

int

; i<=size; i+)

scanf("%d", arr[i]);

prmtf("%d", arr[i]);

The code is erroneous since the statement declaring the array is invalid.

The code is erroneous since the values of the array are getting scanned through the loop.

The code is correct and runs successfully

The code is erroneous since the subscript for the array used in for loop is in the range 1 to size

Which of the following correctly accesses the seventh element stored in arr, an array with 100 elements?

arr{6}

arr[6]

arr[7]

arr{7}

What will be the output of the following program where c=65474 and int=2 bytes

mt main()

%u\n", c+l, &c+l);

retum 0;

65482, 65498

65476, 65476

65476, 65498

No output

What will be output of the following program

mt main()

mt

mt k[4];

Compile Time Error

4

No output

Program crashes

Which of the following is a two-dimensional array?

array anarray[20][20];

int anarray[20][20];

int array[20, 20];

char array[20];

What will be the output of the below program?

mt mamo

mt arr[2]={20};

O[arJ);

retum 0

0

2

20

16

Which function is not called in the following C program?

#mclude

void first()

void second()

void third()

second();

void main()

void (*ptr)();

ptr = third;

ptr();

Function first

Function second

Function third

None of the mentioned

How to call a function without using the function name to send parameters?

typedefs

Function pointer

Both typedefs and Function pointer

None of the mentioned

Which of the following is a correct syntax to pass a Function Pointer as an argument?

void pass(int (*fptr)(int, float, char)) {}

void pass(*fptr(int, float, char)) {}

void pass(mt

void pass(*fptr) { }

Which of the following statements about a priority queue in C++ is FALSE?

Elements are ordered based on their priority

It uses a max-heap by default

It supports random access of elements

It does not support the pop operation

Which operation in C++ queues leads to undefined behavior if performed on an empty queue?

front()

back()

pop()

size()

Consider a scenario where elements are being enqueued and dequeued from a queue in a C++ program. Which operation has a time complexity of 0(1)?

Enqueue

Dequeue

Front

Size

What is the correct output of the given code snippets?

*include <iostream>

*Include <deque>

usmg namespace std;

int main()

deque<int> d;

dpush_back(l O);

dpush_back(20);

dpush_back(30);

deque<int>:-.iterator itr = d. begm()

dinsefi(itr, 2, 40);

for (int i = 0; i < d.size(); i+) {

cout d[i] "

return 0;

}

10 20 30 40

10 40 40 20 30

10 2 40 20 30

Syntax error

The "N-Queens Problem" is a classic example of a backtracking problem. What does N

represent in this problem?

Number of queens

Size of the chessboard (N x N)

Number of available moves

Total number of squares on the chessboard

Let A1, A2, A3, and A4 be four matrices of dimensions 10 x 5, 5 x 20, 20 x 10, and 10 x 5, respectively. The minimum number of scalar multiplications required to find the product AIA2A3A4 using the basic matrix multiplication method is

1500

2000

500

100

When a top-down approach of dynamic programming is applied to a problem, it usually

Decreases both, the time complexity and the space complexity

Decreases the time complexity and increases the space complexity

Increases the time complexity and decreases the space complexity

Increases both, the time complexity and the space complexity

How many steps are required to prove that a decision problem is NP complete?

1

2

3

4

In the Fractional Knapsack problem, suppose the items have negative values. Can a greedy algorithm still be used to solve it optimally?

Yes, as long as the weights are positive

No, a greedy algorithm cannot handle negative values

It depends on the specific instance of the problem

None of the above

Given the following input (4322, 1334, 1471, 9679, 1989, 6171, 6173, 4199) and the hash function x mod 10, which of the following statements are true?

i. 9679, 1989, 4199 hash to the same value

ii. 1471, 6171 hash to the same value

iii. All elements hash to the same value

iv. Each element hashes to a different value

i only

ii only

i and ii only

iii or iv

In a singly linked list, to reverse the order of elements, which of the following approaches has the best time complexity?

Traverse the entire list and create a new reversed list.

Use a stack to store the elements of the list and then create a new reversed list.

Modify the links of the nodes in-place to reverse the list.

Traverse the list recursively and reverse the order of elements.

Which of the following is not an application of a queue?

A printer spooler

A job scheduler

A waiting line

A stack

Which of the following functions is used to concatenate a string to another string object in

concat()

strcat()

append()

None of the above

Consider the below left-left rotation pseudo code where the node contains value pointers to left, right child nodes and a height value and Height() function returns height value stored at a particular n

avltree leftrotation(avltreenode z) :

avltreenode w =x-left

x-left=w-right

w-right=x

x- (x- left) , Height (x- right)) +1

w-height=max(missing)+l

return

What is missing?

Height(w-left), x-height

Height(w-right), x-height

Height(w-left), x

Height(w-left)