CODING ROUND QUESTION & ANSWERS

1) Find the distinct elements in a given array. (Assume size of an array n<=20)

Sample Input:

-
-

Sample Output:

-

Program:

2) Program to sort array in ascending & descending order.

Input:

Output:

Program:

3) Sort first half in ascending and second half in descending order.

Example 1:

Example 2:

Algorithm:

Program:

4) Print the following pattern pattern

Input:

Output:

Input :

Output:

Program:

5) Print the following pattern pattern

Input :

Output:

Input :

Output:

Program:

6) Print the below pattern

Input:

Output:

Program:

7) Print the following pattern

Input:

Output:

Program:

8) Print the below pattern

Input:

Output:

Program:

9) Print the below pattern

Input:

Output:

Program:

10) Print pattern

Input:

Output:

Program:

11) Paranthesis checker:

Test Case: 1

Test Case: 2

Program:

12) Print the transpose of a Matrix:

13) Matrix Addition:

Program:

syntax error

Answer:

```
int x = 1;
```

logical error

Solution:

for(j=i;j<n;j++)

code by reusing the existing function

Return Value:

Code approach For the question:

Test Case:

// Return the sum of elements from index 0 to (idx – 1)

// Return the sum of elements from index (idx + 1) to (n – 1)

// returns -1 if no equilibrium index found

Solution:

// Return the sum of elements from index 0 to (idx – 1)

```
// Return the sum of elements from index (idx + 1) to (n – 1)









// returns -1 if no equilibrium index found



    int i;
    for(i = 0; i < n; i++)
    {
        if(left_side_sum(a, n, i) == right_side_sum(a, n, i))
        {
            return i;
        }
    }

    return -1;
```

1) Check for syntax error/ logical error and correct the error to get the desired output.

Input: 4
Output: Infinite loop

Answer:

```
int i = n;
```

2) Find the factorial of a given number.

Input: 20
Output: -2102132736

Answer:

3) Check whether the below program print the below pattern

Input: 3
Output:
111
222
333

Answer:

```
for(j = i-1; j<n; j++)
```

4) Find the greatest of three numbers.

Answer:

elseif **else if**

5) Fix the error, recompile and match against the output provided.

Corrected program:

6) Code reuse:

Answer:

7) Print the prime numbers from an array up to given value n by using existing function.

Answer:

1 – AMCAT automata questions:

Find the number of all possible triplets in the array that can form the triangle (condition is a + b > c).

2 – AMCAT automata question

Print all the prime numbers which are below the given number separated by comma

3 – AMCAT automata questions

Program to find the GCD of two Integers.

4 – AMCAT automata questions

Program to find out sum of digits of given number.

5 – AMCAT automata questions

Print the pattern If input is 5

1
3*2
4*5*6
10*9*8*7
11*12*13*14*15

6 – AMCAT automata questions

Test Cases:

Test Case 1:

Explanation:

7 – AMCAT automata questions

Input:

Instructions

Points to note

Program:

Explanation:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

Solution:

1) Count the number of co-prime pairs in an array. (

Input:

Output:

Constraints

Sample Input and Output:
Input:

Output:

Input:

Output:

Program:

2) Search for Nth Occurrence

Input and Output:

Sample Input and Output:
Input:

Output:

Program:

3) Search for an element in an array:

Input and Output:

Sample Input and Output:
Input 1:
3

Output 1:
Input 1:
3

Output 2:

Program:

4) Second largest number –

Input:

Output:

Constraints

Sample Input and Output:
Input:

Output:

Program:

5) Search index in a sorted array:

Input and Output:

Sample Input and Output:
Input 1:

Output 1:

Program:

1) Count the number of co-prime pairs in an array. (

Input:

Output:

Constraints

Sample Input and Output:
Input:

Output:

Input:

Output:

Program:

2) Search for Nth Occurrence

Input and Output:

Sample Input and Output:
Input:

Output:

Program:

3) Search for an element in an array:

Input and Output:

Sample Input and Output:
Input 1:
3

Output 1:
Input 1:
3

Output 2:

Program:

4) Second largest number –

Input:

Output:

Constraints

Sample Input and Output:
Input:

Output:

Program:

5) Search index in a sorted array:

Input and Output:

Sample Input and Output:
Input 1:

Output 1:

Program: