

CodeWise

Introduction: Why should college students have all the fun? School students of all ages now have a platform to showcase their coding prowess.

About the Event:

The event will consist of only one round. It will be comprising of two sections-

- **Section 1:**
 - a. Will consist of **MCQ type questions.**
 - b. Either will be pen and paper based or google form based
 - c. To test one's basic knowledge of basic computer skills, fundamentals of OOP, understanding of programming languages like Java and C++ and a few related domains.
 - d. Questions will mostly be output-based, finding out errors and simple MCQ's.
- **Section 2:**
 - a. The second section will be an **onsite coding event.**
 - b. The participants will have to code on the available platforms in either of the mentioned languages- **Java, C++ or Python.**
 - c. The time taken and the number of problems properly solved will be taken into account while judging the top performers of this section.
 - d. The final evaluation of the top performers will entirely depend on the performance of the participants in both the rounds.

A few sample questions are provided below.

Examples:

Section 1: (MCQ Questions)

1. The OOP Principles are :
 - a. Encapsulation
 - b. Inheritance
 - c. Abstraction
 - d. Polymorphism
 - e. All of these

2. The range of byte data type in Java is :
 - a. -32768 to 32767
 - b. -128 to 127
 - c. 0 to 255
 - d. None of these

3. What will be the output of the code snippet :

```
1 public class HelloWorld{  
2  
3     public static void main(String []args){  
4         int a=6;  
5         System.out.println(a++ + ++a);  
6     }  
7 }
```

- a. 11
- b. 12
- c. 13
- d. 14

Section 2: (Coding Questions)

Write a program to print the pattern according to the value n, given as input by the user.

For n=3, the pattern will be:

```
1  
1 3  
1 3 5
```

Input Format

The input will be a single integer n.

Constraints

$1 \leq n \leq 10$

Output Format

The output will be the pattern printed according to the value taken as input. The entries in each row should be space separated.

Sample Input

5

Sample Output

1
1 3
1 3 5
1 3 5 7
1 3 5 7 9

Solutions:

Section 1:

1. (e) All of these
2. (b) -128 to 127
3. (d) 14

Section 2:

Java:

```
1 import java.io.*;
2 public class HelloWorld{
3
4     public static void main(String []args)throws IOException{
5         int i,j,k,n;
6         BufferedReader xy=new BufferedReader(new InputStreamReader(System.in
7         ));
8         n=Integer.parseInt(xy.readLine());
9         for(i=1;i<=n;i++){
10            k=1;
11            for(j=1;j<=i;j++){
12                System.out.print(k+" ");
13                k=k+2;
14            }
15            System.out.println();
16        }
17    }
```

Note : Solutions in C++ and Python are also acceptable.

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