



## Fresher's Question Paper I

[ Note: Please do not write anything on question paper ]

A) Write programs to print the following patterns. (n=5)

Pattern 1:

```

    1
  1 2 3 4 5
2 2 3 4 5 1
3 3 4 5 1 2
4 4 5 1 2 3
5 5 1 2 3 4
  
```

Pattern 2:

```

    1
  0 1
1 0 1
0 1 0 1
1 0 1 0 1
  
```

*Handwritten notes:*  
 $i = 1$   
 $\text{for } i = 0 \text{ to } 4$   
 $\text{for } j = 0 \text{ to } i$   
 $\text{if } (i + j) \% 2 == 0$   
 $\text{print } 1$   
 $\text{else print } 0$

Pattern 3:

```

    +
  +
+ +
+ + +
++++
+
+
+
+
  
```

*Handwritten notes:*  
 $i = 0$   
 $\text{for } i = 0 \text{ to } 4$   
 $\text{for } j = 0 \text{ to } i$   
 $\text{print } '+'$

Pattern 4:

```

    *
  * *
* * *
* * * *
* * * *
  
```

*Handwritten notes:*  
 $i = 1$   
 $\text{for } i = 0 \text{ to } 4$   
 $\text{for } j = 0 \text{ to } i$   
 $\text{print } '*'$

B) Write a program to check whether a number is Prime number or not.

Input: 31

Expected Output: Given number is Prime

Input: 27

Expected Output: Given number is not Prime

[ Note: Please do not write anything on question paper ]

A) Write programs to print the following patterns. (n=5)

Pattern 1:

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

Pattern 2:

```
5
4 5
3 4 5
2 3 4 5
1 2 3 4 5
```

Pattern 3:

```
*
* *
* * *
* * * *
* * * * *
```

Pattern 4:

```
* * * * *
* 3 4 5 6 *
* 4 5 6 7 *
* 5 6 7 8 *
* 6 7 8 9 *
* * * * *
```

B) Write a program to check whether a given string is Palindrome without using a reverse function.

Input: nitin

Output: Given string is Palindrome

nitin