

ASSIGNMENTS
PROGRAMMING WITH PYTHON
MCA 1 Year 1 Semester, 2023
Subject Code: MCA1102

1. Write scripts to print each of the following output pattern. The number of rows to be printed is to be accepted as user input.

<pre> A B B B C C C C C D D D D D D D E E E E E E E E</pre>	<pre> A B C D C D E F G D E F G H I J E F G H I J K L M</pre>
<pre> A A B A A B C B A A B C D C B A A B C D E D C B A</pre>	<pre> E E D E E D C D E E D C B C D E E D C B A B C D E</pre>

2. Given the following dictionary:

```
students = {
    'roll' : [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12],
    'marks' : [25, 25, 20, 26, 38, 32, 36, 32, 19, 23, 25, 32]
}
```

- (i) Load the dictionary in a Pandas DataFrame.
 - (ii) Find the maximum and minimum marks.
 - (iii) Find the average marks and how many students scored more than the average marks. Also find the students scoring those marks.
 - (iv) Find the most common marks scored by students. And also find the students scoring those marks.
 - (v) Find the three maximum marks in the dataset and the students scoring those marks.
3. List any five types of exceptions that you faced during programming with Python. Show with relevant examples when those exceptions occurred.