

OpenBook Assessment Test -1

February 22, 2019

1 OpenBook Assessment Test -1

Duration: 90 mins

Please type python programs for the following. Once done please move all the code files to a folder. Compress the folder and email it to the coordinator.

Q1: Add given list of numbers by place value addition (do not directly add the numbers. You are allowed only to add single digit numbers).

Q2: Sort a list that has more than 1000 elements, remove duplicates on that list. Generate needed 1000 elements in random.

Q3: Provide a solution for the below problem.

```
A = [1, 3, 5, 7, 9, ... n]
B = [2, 4, 6, 8, 10, ... n+1]
```

Expected output: [3, 1, 11, 1, , 19, ...]

Q4: Draw the below pattern.

input: 9

output:

```
      1
    2 1 2
  3 2 1 2 3
4 3 2 1 2 3 4
5 4 3 2 1 2 3 4 5
6 5 4 3 2 1 2 3 4 5 6
7 6 5 4 3 2 1 2 3 4 5 6 7
8 7 6 5 4 3 2 1 2 3 4 5 6 7 8
9 8 7 6 5 4 3 2 1 2 3 4 5 6 7 8 9
```

Q5: Replace the opposite patterns in the given string with number in increasing detection.

Example: {abcdefbafexyz} will become {abcdef1122xyz}