

## List Assignment - 4

Q1. Create a new list which have the squares of every element of the given list using list comprehension.

```
lst = [2,3,4,5,6,7]
```

```
Output = [4,9,16,25,36,49]
```

Q2. Write a Python program using a list comprehension to create a list of even numbers less than 8 from 1 to 20.

Q3. Write a Python program using a list comprehension to create a list of numbers from 1 to 10, but only include numbers that are greater than 5.

Q4. Write a Python program using a list comprehension to create a list of the first letters of each word in the given list.

```
lst = ['apple', 'banana', 'cherry'].
```

Q5. Write a Python program using a list comprehension to create a list of the lengths of each word in the given list.

```
lst = ['python', 'java', 'c++'].
```

Q6. Write a Python program using a nested list comprehension to flatten the given list.

Input list: `[[1, 2, 3], [4, 5], [6, 7, 8]]`.

Output: `[1, 2, 3, 4, 5, 6, 7, 8]`

Q7. Write a Python program using a list comprehension to create a list of numbers from 1 to 20 that are divisible by both 2 and 3.

Q8. Write a Python program using a list comprehension to create a list of the sums of corresponding elements from the lists `[1, 2, 3]` and `[4, 5, 6]`.

Output: `[5, 7, 9]`

Q9. Write a python program using list comprehension to create a list which has the sums of elements of list of given list.

`lst = [[1,2,3],[3,4,5],[3,4,5],[5,7,3,2]]`

Output: `[6,12,12,17]`

Q10. Write a python program using list comprehension to create a list which has the min of elements of list of given list.

`lst = [[1,2,3],[3,4,5],[3,4,5],[5,7,3,2]]`

Output: `[1,3,3,2]`