

Final Term Paper

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Submitted To:

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Q1.

Ans.

```
from collections import Counter
```

```
def a_sentence():
```

```
    g_sentence = input('Enter a sentence: ')
```

```
    f_sentence = g_sentence[:-1]
```

```
    words = f_sentence.split()
```

```
    a = Counter(words)
```

```
    return a
```

```
print(a_sentence())
```

Output:

```
Enter a sentence:
```

```
Pakistan country code is 92 and Pakistan also won world cup in 92
```

```
Counter({'Pakistan': 2, 'country': 1, 'code': 1, 'is': 1, '92': 1, 'and': 1, 'also': 1, 'won': 1, 'world': 1, 'cup': 1, 'in': 1, '9': 1})
```

Q2.

```
rows = 5
```

```
for i in range(0, rows + 1):
```

```
    for j in range(rows - i, 0, -1):
```

```
        print(j, end=' ')
```

```
    print()
```

Output:

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

Q3.

```
def make_uniq(not_uniq):
```

```
    uniq_set = set(not_uniq)
```

```
    uniq_list = list(uniq_set)
```

```
    return uniq_list
```

```
l = [1,2,2,2,3,5,3,4,4,6,64,6]
```

```
print(make_uniq(l))
```

Output:

```
[64, 1, 2, 3, 4, 5, 6]
```

Q4.

```
def tri(x):
```

```
    old = [1]
```

```
    for x in range(1, x + 1):
```

```
        new = [1]*x
```

```
        for i, each in enumerate(old):
```

```
            if i > 0:
```

```
                new[i] = old[i] + old[i-1]
```

```
        print(new)
```

```
        old = new.copy()
```

```
inp = int(input('Number of lines to caculate : '))
```

```
tri(inp)
```

Output:

```
Number of lines to caculate : 6
```

```
[1]
```

```
[1, 1]
```

```
[1, 2, 1]
```

```
[1, 3, 3, 1]
```

```
[1, 4, 6, 4, 1]
```

```
[1, 5, 10, 10, 5, 1]
```

Q5.

```
def recur_sum(n):
```

```
    if n <= 1:
```

```
        return n
```

```
    else:
```

```
        return n + recur_sum(n-1)
```

```
num = 10
```

```
if num < 0:
```

```
    print("Enter a positive number")
```

```
else:
```

```
    print("The sum is",recur_sum(num))
```

Output:

The sum is 55