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TNU
Modern Programming Language
Final Term

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Question 1

```
text_line = input("Type in:")
freq_dict = {}
for i in text_line.split(' '):
    if i.isalpha():
        if i not in freq_dict:
            freq_dict[i] = 1
        elif i in freq_dict:
            freq_dict[i] + 1
```

(10)

(2)

else:

pass

```
sorted_freq_dict = sorted(freq_dict.items(), key  
                           = operator.itemgetter(0))
```

```
print(sorted_freq_dict)
```

```
for i in sorted_freq_dict:
```

```
    print(i[0], i[1])
```

Question No. 2Program:

```
# Pyramid Pattern in descending order.
```

```
* rows = 5
```

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

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

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

```
        print(" ")
```

Result:

```
5 4 3 2 1
```

```
4 3 2 1
```

```
3 2 1
```

```
2 1
```

```
1
```

(4)

Question No 3:

Unique_element of list.

```
def unique_list (l):
```

```
    x = [ ]
```

```
    for a in l:
```

```
        if a not in x:
```

```
            x.append(a)
```

```
    return x
```

```
print (unique_list ([1, 2, 3, 3, 3, 3, 4, 5])
```

Result:

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

Question 4:

Pascal triangle

finding no. of rows.

n = int(input("Enter No. of Rows: "))

a = []

for i in range(n):

a.append([])

a[i].append(1)

for j in range(1, i):

a[i].append(a[i-1][j-1] + a[i-1][j])

if (n != 0)

a[i].append(1)

for i in range(n):

print(" " * (n-i), end=" ", sep=" ")

for j in range(0, i+1):

print("{0:6}!".format(a[i][j]), end=" ", sep=" ")

print()

Result:

Enter No. of rows = 5

[1]

[1, 1]

[1, 2, 1]

[1, 3, 3, 1]

[1, 4, 6, 4, 1]

(6)

Question No 5

Recursive Sum of 0 to 10 numbers

```
def recurSum(n):
```

```
    if n <= 0:
```

```
        return n
```

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

Driver code

```
n = 10
```

```
print (recurSum(n))
```

Result:

55 Ans.