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Subject MPL

Q1 Write a program to computer the frequency of the words from the user input. The output should output after sorting the key alphanumerically. Suppose the following input is supplied to the program

```
1 User _ str = input ('enter string: ')  
2 = user _ str . split ()  
3 d = {}  
4 for i in 1 :  
5 if i not in d . keys ():  
6 d [ i ] = 0  
7 d [ i ] = d [ i ] +1  
8 print (d)
```

OR Q1

```
import operator
```

```
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] = freq_dict[i] + 1
```

```
    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])
```

Q2 Print the following pattern using for loop (nested loop)

```
for a in range (5, 0, - 1):  
    for b in range ( a , 0, -1):  
        print (b, end=" ")  
    print ()
```

output

5 4 3 2 1

4 3 2 1

3 2 1

2 1

1

Q3 Write a Python function that takes a list and returns a new list with unique elements of the first list also print the returned 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]))
```

Q4 Write a Python function that prints out the first n rows (input no of rows from user) of Pascal's triangle.

```
def pascal_triangle(n):  
    trow = [1]  
    y = [0]  
    for x in range(max(n,0)):  
        print(trow)  
        trow=[l+r for l,r in zip(trow+y, y+trow)]  
    return n>=1  
pascal_triangle(6)
```

Q5 Write a recursive function to calculate the sum of numbers from 0 to 10

```
def recur_sum(n):  
    if n <= 0:  
        return n  
    else:  
        return n + recur_sum(n-1)  
  
# change this value for a different result  
num = 10  
  
if num < 0:  
    print("Enter a positive number")  
else:  
    print("The sum is",recur_sum(num))
```

OUTPUT

ANS 5

THE SUM IS 55