Answer Script

Question No. 01

Problem - 1

➔ Write Python program to solve Max Split **20**

Answer No. 01

Code:

```
s = input()
row = 0
column = 0
r = 0
l = 0
counter = 0

ch = [[" for _ in range(1000)] for _ in range(1000)]

for c in s:
    if c == 'R':
        ch[row][column] = c
        r = r + 1
    else:
        ch[row][column] = c
        l = l + 1

    column = column + 1
    if r==l and r>0:
        row = row + 1
        column = 0
        counter = counter + 1
        r = 0
        l = 0

print(counter)

for i in range(1000):
    if ch[i][0] != 'R' and ch[i][0] != 'L':
        continue
    print(''.join(ch[i]))
```

Question No. 02

Problem - 2

➔ Write Python program to solve Good Sequence **20**

Answer No. 02

Code:

```
from collections import Counter
def good_sequence(nums):
    freq_cnt = Counter(nums)

    total = 0

    for x, y in freq_cnt.items():
        if x < y:
            total += y - x
        elif y < x:
            total += y

    print(total)

n = int(input())
s = input()

ara = []
ara = [int(num) for num in s.split()]
good_sequence(ara)
```

Question No. 03

Problem - 3

a

➔ Write the difference between List and Dictionary of Python. **10**

b

➔ Write about *args and **kwargs of Python with proper examples. **10**

Answer No. 03

a.

The Difference between List and Dictionary Of Python:

List	Dictionary
1. List is a collection of index value pairs as an array in Python.	1.Dictionary is a hashed structure of key and value pairs.
2. List is created by placing elements in [ ] separated by commas “,”.	2. Dictionary is created by placing elements in { } as “key”:”value”, each key value pair is separated by commas “, “
3. The indices of the list are integers starting from 0.	3. The keys of the dictionary can be of any data type.
4. The elements are accessed via indices.	4. The elements are accessed via key-values.
5. The order of the elements entered are maintained.	5. There is no guarantee for maintaining order.

b.

***args:**

*args allows us to pass a variable number of non-keyword arguments to a Python function. In the function, use an asterisk (*) before the parameter name to pass a variable number of arguments.

Example:

```
def add(*num):
        sum = 0
        for x in num:
                sum = sum + x
        print("Sum: ", sum)
add(3, 5)
add(3, 5, 3)
```

****kwargs:**

**kwargs allows us to pass a variable number of keyword arguments to a Python function. In the function, use the double-asterisk (**) before the parameter name to denote this type of argument.

Example:

```
def print_info(**text):
        for key, value in text.items:
                print(f"{key}: {value}")
```

Question No. 04

Problem - 4

➔ Write Python program to solve Minimize Number **20**

Answer No. 04

Code:

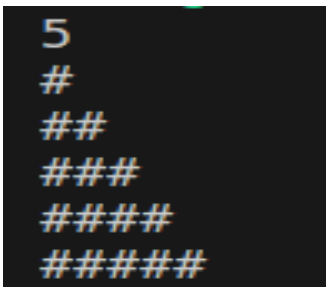
```
def solveProb(ara):
   n = len(ara)
   x = 0
   cnt = 0
   while True:
      for i in range(n):
         if ara[i] % 2 == 0:
            x += 1

      if x == n:
         for i in range(n):
            ara[i] //= 2
         x = 0
         cnt += 1
      else:
         print(cnt)
         break

n = int(input())
ara = []
s = input()
ara = [int(num) for num in s.split()]
solveProb(ara)
```

Question No. 05

Problem - 5

➔ Take a number from the user and draw a pyramid using PyAutoGUI **20**

Sample :



Answer No. 05

Code:

```
import pyautogui
from time import sleep

n = int(input())
sleep(5)

for i in range(1, n+1):
    for j in range(1, i+1):
        pyautogui.typewrite("#", interval=0.25)
    pyautogui.press('enter')
```