Lab Exercise 4

[Based on Python data types, conditional statements & Loops]

Q1: Write a python program to add all the odd numbers from 0 to 20.

Q 2: Write a python program to find the sum of all integers greater than 100 and less than 200.

Q3: Write a program to display the sum of square of the first ten even natural numbers

// $(2*2 + 4*4 + 6*6 + 8*8 + 10*10 + 12*12 + 14 * 14 + 16 * 16 + 18*18 +$

$20*20)$ Q4: Write a python program to display ascii characters from 65 to 90

```
65  =  A
66  =  B
67  =  C
68  =  D
69  =  E
70  =  F
71  =  G
72  =  H
73  =  I
74  =  J
75  =  K
76  =  L
77  =  M
78  =  N
79  =  O
80  =  P
81  =  Q
82  =  R
83  =  S
84  =  T
85  =  U
86  =  V
87  =  W
88  =  X
89  =  Y
90  =  Z
```

Q5: Display ascii characters from 48 to 57.

```
48 = 0
49 = 1
50 = 2
51 = 3
52 = 4
53 = 5
54 = 6
55 = 7
56 = 8
57 = 9
```

Q6: Display the following output with the help of Ascii character.

```
97  = a
98  = b
99  = c
100 = d
101 = e
102 = f
103 = g
104 = h
105 = i
106 = j
107 = k
108 = l
109 = m
110 = n
111 = o
112 = p
113 = q
114 = r
115 = s
116 = t
117 = u
118 = v
119 = w
120 = x
121 = y
122 = z
```

Q7: Write a python program for given a Python list you should be able to display Python list in the following order

L1 = [100, 200, 300, 400, 500]

Expected output:

[500, 400, 300, 200, 100]

Q8: Write a Python program to concatenate following dictionaries to create a new one.

Sample Dictionary :
dic1={1:10, 2:20}
dic2={3:30, 4:40}
dic3={5:50,6:60}
Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

Q9: Write a Python program to add key to a dictionary.
Sample Dictionary : {0: 10, 1: 20}
Expected Result : {0: 10, 1: 20, 2: 30}

Q10: Write a Python program to print out a set containing all the colors from a list which are not present in another list

Test Data :

color_list_1 = set(["White", "Black", "Red"])
color_list_2 = set(["Red", "Green"])

Q11: Given a Python list. Write a python program to turn every item of a list into its
     square List1 = [1, 2, 3, 4, 5, 6, 7]

     Expected output:
             [1, 4, 9, 16, 25, 36, 49]

Q12: Program to count the number of each vowel in a string.

Q13:Write a python program to Access the value of key 'history' from the following
     dictionary-sampleDict = {
         "class":{
         "student":{
                 "name":"Mike",
                "marks":{
                         "physics":70,
                         "history":80
                         }
                 }
         }
         }

Q 14: write a Program to Remove Punctuations from a String provided by the user. [Hint: use punctuation attribute of string module to get all punctuations (i.e. !"#$%&\'()*+,-./:;<=>?@[\\]^_`{|}~)]

[Nested Loops]

Q15: Write a python program to print the Following:

```
1
2 1
3 2 1
```

Q16: WAP to print the following asterisk pattern:

Q17: WAP to create a function traiangle to print the following asterisk triangle pattern:

Q18: Write a python program to print following multiplication table on the screen

```
        1    2    3    4    5    6    7    8    9   10
    +---------------------------------------------------
  1 |   1    2    3    4    5    6    7    8    9   10
  2 |   2    4    6    8   10   12   14   16   18   20
  3 |   3    6    9   12   15   18   21   24   27   30
  4 |   4    8   12   16   20   24   28   32   36   40
  5 |   5   10   15   20   25   30   35   40   45   50
  6 |   6   12   18   24   30   36   42   48   54   60
  7 |   7   14   21   28   35   42   49   56   63   70
  8 |   8   16   24   32   40   48   56   64   72   80
  9 |   9   18   27   36   45   54   63   72   81   90
 10 |  10   20   30   40   50   60   70   80   90  100
```