Name:

EmpID:

1. The following illustrates usage of range function, which returns a sequence of numbers.

```
1  print("contents of range(5):")
2  for i in range(5): #do not forget : in the end
3      print(i) #print is a function, need to follow by (),
4      #parameter of print function is included inside the ().
5
6  print("\ncontents of range(1, 5):") #\n is new line character
7  #visually it is like to start an empty line
8  for i in range(1, 5): #cannot write 1,5 as 1:5, since range is a function and its
       parameters are separated by space
9      print(i)
10
11 print("\ncontents of range(1, 5, 2):") #\n is new line character
12 for i in range(1, 5, 2): #start from 1, ends BEFOFE 5, each time increased by 2.
13     print(i)
14
15 #challenge: count down from 5 to 0, decreased by 1 each time.
16 print("\nCount down from 5 to 0 (Included)")
17 for i in range(5, ?, −1): #What is the value of ?
18     print(i)
```

2. Divide 10 pens among 3 students, each student need to get the same number of pens, how many pens does a student get? How to write a formula in python?

3. Divide 10 pens among 3 students, each students need to get the same number of pens, how many pen(s) is/are left? How to write a formula in python?

4. What is the output of the following code?

```
1  string = "hello, world"
2
3  #print each letter of string, one in a line
4  print("print each letter of string, one in a line")
5  for ch in string:
6      print(ch)
7
8  print("\nprint each letter of string, one in a line, using character indexed
        at string") #\n is a new charater, backslash \ before n changes the meaning of n, it
        is like to insert a new line. Visually it is an empty line.
9  size = len(string)
10 for i in range(size):
11     print(string[i])
12
13 print("\nprint the first 5 letters of string")
14 print(string[0:5])
15
16 print(string[0:5:2])  #string is a variable, cannot replace : by ,
17
18 #how to get a reverse string of the original string?
```

```
1  s = "FridaysSaturdaysSundays"
2  num = s.count('s') #what happens if we use num = s.count(s)
3  print("There are", num, "fun days in a week.")
4
5  days = s[:-1].split('s') #What is s[:-1]?
6                           #What is value of days?
7  mess = days[0]
8  print("Two of them are", mess, days[-1])
9
10 result = ""
11 for i in range(len(mess)): #what is len(mess)?
12     if i > 2:
13         result = result + mess[i]
14
15 print("My favorite", result, "is Saturday")
```