JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2023

B. Tech-III Semester (CSE)

COURSE CODE(CREDITS): 18B11CI314(3) MAX. MARKS: 15

COURSE NAME: Python Programming Essentials

COURSE INSTRUCTORS: Dr. Naveen Jaglan, Dr. Emjee Puthooran, Dr. Salman Raju Talluri
and Dr. Nishant Jain MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b)Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for

solving problems

1. Write a python program to print the following pattern using loops:

```
1
1 2 1
1 2 3 2 1
1 2 3 4 3 2 1
1 2 3 4 5 4 3 2 1
```
[CO-1,2; 2 Marks]

2. What will be the output of the following python codes?

Ques 2(b)

```
L1 = [1, 1.33, 'GFG', 0, 'NO', None, 'G', True]
val1, val2 = 0, ''
for x in L1:
    if type(x) == int or type(x) == float:
        val1 += x
    elif type(x) == str:
        val2 += x
    else:
        break
print(val1, val2)
```

Ques 2(a)

```
L1 = []
L1.append([1, [2, 3], 4])
L1.extend([7, 8, 9])
print(L1[0][1][1] + L1[2])
print(L1)
```

[CO-1,2;1+1Marks]

3. What will be the output of the following Python codes?

```
                    Ques 3(b)

dictionary1 = {'Google': 1,
               'Facebook': 2,
               'Microsoft': 3
               }
dictionary2 = {'GFG': 1,
               'Microsoft': 2,
               'Youtube': 3
               }
dictionary1.update(dictionary2)
for key, values in dictionary1.items():
    print(key, values)
```

```
        Ques 3(a)

L1 = [1, 2, 3, 4]
L2 = L1
L3 = L1.copy()
L4 = L3
L1[0] = [5]
print(L1, L2, L3, L4)
```

[CO-1,3; 1+1 Marks]

4. Write a python program to compute the sum of all the multiples of 3 or 5 below 500. [CO-1; 1 Marks]

5. Write a python program to find the common elements in two lists.   [CO-2; 2 Marks]

6. Write a python program to demonstrate the use of globals () function.   [CO-1,2; 2 Marks]

7. Write a python program to print the first Seven Fibonacci Sequence numbers.
Note: A Fibonacci Sequence is the integer sequence of 1,1,2,3,5,8,13....   [CO-1,2; 2 Marks]

8. You have x *no. of 5-rupee coins* and y *no. of 1-rupee coins.* You want to purchase an item for amount z. The shopkeeper wants you to give him exact change. You want to pay using a minimum number of coins. How many 5-rupee coins and 1-rupee coins will you use? If exact change is not possible then display -1.

Sample Input			Expected Output	
Available Rs. 1 coin	Available Rs. 5 coins	Amount to be made	Rs. 1 coin needed	Rs. 5 notes needed
2	4	21	1	4
11	2	11	1	2
3	3	19	-1	

[CO-1; 2 Marks]