

POSSESSION OF MOBILE IN EXAMINATION IS A UFM PRACTICE

Name of Student ----- Enrolment No. -----

Department -----

BENNETT UNIVERSITY, GREATER NOIDA

Supplementary Examination, August 2018

COURSE CODE: **ECSE101L**

MAX. DURATION: **TWO HOURS**

COURSE NAME: **Computational Thinking with Python**

COURSE CREDIT: **5**

MAX. MARKS: **50**

Note:

- Attempt all questions and marks for each question are written against them.
- There will be no negative marking.

Q1. [Marks 2*4] Write the output of the following Python programs:

<p>(a)</p> <pre>my_list = ['p','r','o','g','r','a','m','i','z'] print(my_list[2:5])</pre>	<p>(b)</p> <pre>i = 1 while True: if i%3 == 0: break print(i) i += 1</pre>
<p>(c)</p> <pre>thistuple = ("apple", "banana", "cherry") thistuple[1] = "mango" print(thistuple)</pre>	<p>(d)</p> <pre>class Person: def __init__(self, name, age): self.name = name self.age = age p1 = Person("Martin", 44) print(p1.name) print(p1.age)</pre>

Q2. [Marks 1*2+2*2=6]

Questions (i) & (ii) carry 1 mark each and (iii) & (iv) carry 2 marks each.

(i) What data type is the object below?

Obj1=[1, 23, 'hello', 1]

- (a) List
- (b) Dictionary
- (c) Tuple
- (d) Array

(ii) What is the output the following Python statement?

print(9//2)

- (a) 4.5
- (b) 4
- (c) 5
- (d) Error

(iii) What is the output of the following code:

L = ['a','b','c','d']

Print("".join(L))

- (a) Error
- (b) abcd
- (c) ['a','b','c','d']
- (d) None of the above

(iv) Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.pop(1)?

- (a) [3,4,5,20,5,25,1,3]
- (b) [1,3,3,4,5,5,20,25]
- (c) [3,5,20,5,25,1,3]
- (d) [1,3,4,5,20,5,25]

Q3. [Marks 4] Write a Python program to accept three numbers and check whether the first is between the other two numbers.

Q4. [Marks 6] Write a Python program to take a real number (x) and an integer (n) to calculate the sum of first n terms of the series. For example: if x=2 and n=5, then the output will be the solution of the following:

$x + 3x + 5x + 7x + 9x$ i.e. $(1*2) + (3*2) + (5*2) + (7*2) + (9*2)$

Q5. [Marks 6] Write a Python program which takes an integer from the user and checks if the number is a palindrome or not.

Q6. [Marks 8] Write a Python program to create a list which contains n integers entered by the user and add 2 to each of the even numbers in the list. Example: If initial contents of the list is=[1,2,3,4,5,6,7,8,9,10], the output would be=[1,4,3,6,5,8,7,10,9,12]

Q7. **[Marks 6]** Write a Python program to print a dictionary where the keys are numbers between 1 and 15 (both included) and the values are square of keys and find the average value in a dictionary.

Q8. **[Marks 6]** Write a Python program to calculate GCD (Greatest Common Divisor) of two integers using recursive function. The program takes the values of two integers from the user and produces the GCD of these two values. Example: GCD of 8 and 12 is 4.

