G04-36

VIT
Vellore Institute of Technology

			SLOT: F2
School of Information Technology and Engineering			
Winter Semester 2022-2023			Continuous Assessment Test – I
Programme Name & Branch		MCA & Computer Applications	
Course Code:	ITA6017	Course Title:	Python Programming
Class Number(s)	VL2022230500538, VL2022230500251 & VL2022230500489		
Faculty Name(s)	NIVEDHITHA M, ARUNKUMAR A & BALASUBRAMANI M		

Exam Duration: 90 Min. **Maximum Marks: 50**

General instruction(s): Answer all the questions

Q.No.	Question	Max Marks
1.	a) Write Python code that can compute perimeter and area of the circle using the variables radius and pi=3.14159. Take input radius from the user.	5
	b) Write Python script to swap two numbers a=12, b=24 (i) using third variable c (ii) without using third variable	5
2.	a) Evaluate the following expressions in python i) 24 // 6 % 3 ii) float (4 + int (2.39) % 2) iii) 2 ** 2 ** 3 iv) not ((125<45.9) & (6*2<=13)) v) (125==521) & (2<3)	5
	b) Write a python program to solve the quadratic equation $ax^2+bx+c=0$.	5
3.	a) Appraise with an example nested if and elif ladder in Python	5
	b) If you are given three sticks, you may or may not be able to arrange them in a triangle. For example, if one of the sticks is 12 inches long and the other two are one inch long, you will not be able to get the short sticks to meet in the middle. For any three lengths, there is a simple test to see if it is possible to form a triangle: If any of the three lengths is greater than the sum of the other two, then you cannot form a triangle. Otherwise, you can. Write a python code that prints either true or false, depending on whether you can or cannot form a triangle from sticks with the given lengths.	5
4.	a) Explain with an example while loop, break statement and continue statement in Python.	5
	b) Write a Python program to generate first 'N' Fibonacci series numbers. (Note: Fibonacci numbers are 0, 1,1,2,3,5,8… where each number is the sum of the preceding two).	5
5.	a) Write a python program to insert a number in a list of sorted numbers without using built in function.	5
	b) Write a Python program to replace last value of tuples in a list. Sample list: [(10, 20, 40), (40, 50, 60), (70, 80, 90)] Expected Output: [(10, 20, 100), (40, 50, 100), (70, 80, 100)]	5