VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

School of Computer Science and Engineering
Winter Semester 2023-24
Continuous Assessment Test – II

SLOT : A2+TA2

Programme Name &Branch : B.Tech - Computer Science & Engineering & Business Systems
Course Name & code: Programming in Python &CBS1011
Class Number (s): VL2023240503608, VL2023240503619
Faculty Name (s): Dr.S.Sudha,Dr.A.Anny Leema
Exam Duration: 90 Min. **Maximum Marks: 50**

Answer All the Questions

Q.No	Question	Max Marks
1.	Predict the output for the given python code. s = "python rocks" Mali = 4 str_list = ['Python', 'is', 'fun'] print(s[1] * s.index("n")) s= s.capitalize() print(s.lower()) print(s.find('roc')) print(s[2] + s[-5] + s[-3]) print(s[-2:-7:-3]) print(s.count('o')) print(s.split()) print("Mali" + " is " + str(Mali+1)) result = ' '.join(str_list) print(result) print(s.index('a'))	10
2.a (i)	Write a Python program to perform the following tasks using regular expressions Given text is "My phone number is 555-123-4567. Call me anytime! Here's another number: (408) 555-2345"	6
(ii)	Extract phone numbers and display the output as ['555-123-4567', '(408) 555-2345'] emails=["user@example.com","invalid.email@domain", "user_name@domain.co.uk"]	
(iii)	Give the regular expression to validate email. Find all the occurrences of VIT in a given string "VIT vellore and VIT Chennai"	
b.	Predict the output of the following code import re text = "The quick brown fox jumps over the lazy dog. The brown fox is quick." pattern = r"brown" matches = re.finditer(pattern, text) for match in matches: print(f"Match found at index: {match.start()}") print(f"Matched text: {match.group()}") print(f"Match span: {match.span()}") print("-" * 20)	4
3.	Write a python program that defines a user defined function called frequency ( ) which identifies and count the frequency of occurrences of the words in a given	10

	string of sentences that is passed to the user defined function. The frequency occurrences of the word should be returned in sorted order by words in the string. For Example:- Input:- Sentence = "It is true for all that that that that refers to is not the same that that that to refer to " Output:- It:1,all:1,for:1,is:2,not:1,refers:2,same:1,that:7,the:1,to:2,true:1	
4.a	Predict the output of following code snippets:	6
(i)	name_list = ['alexei', 'elena', 'william', 'diego', 'adrian'] title_name = list(map(str.title, name_list)) print(title_name)	
(ii)	my_strings = ['a', 'b', 'c', 'd', 'e'] my_numbers = [1, 2, 3, 4] results = list(map(lambda x, y: (x, y), my_strings, my_numbers)) print(results)	
(iii)	from functools import reduce numbers = [3, 4, 6, 9, 34, 12] def custom_sum(first, second): return first + second result = reduce(custom_sum, numbers, 12) print(result)	
(iv)	circle_areas = [6.56773, 9.57668, 4.00914, 6.24241, 9.01344, 32.00013] map_result = list(map(round, circle_areas, range(1,7))) print(map_result)	
(v)	dromes = ("demigod", "rewire", "madam", "freer", "anutforajaroftuna", "kiosk") result1 = list(filter(lambda word: word != word[::-1], dromes)) result2 =list(filter(lambda word: word == word[::-1], dromes)) print(result1) print(result2)	
b.	Write a program to print the students who scored above 60 in physics exams from the list of 15 student's marks using appropriate high order built-in function.	4
5	Aditi has used a text editing software to type some text. After saving the article as WORDS.TXT, she realised that she has wrongly typed alphabet J in place of alphabet I everywhere in the article. write a function definition for JTOI() in Python that would display the corrected version of entire content of the file WORDS.TXT with all the alphabets "J" to be displayed as an alphabet "I" on screen. The content stored in the file is: WELL, THJS JS A WORD BY JTSELF. YOU COULD STRETCH THJS TO BE A SENTENCE.	10