

Computer Science Exam Tutor - Aneetta		Total Marks - 50 15 December 2023
Section A: Multiple Choice Questions (1 mark each)		
Qn No	Question	Marks
1	Which statement is used to terminate the current loop iteration and move to the next one? A) break B) continue C) pass D) exit	1
2	In Python, which of the following is used to execute a block of code repeatedly as long as a condition is true? A) for loop B) while loop C) repeat loop D) iterate loop	1
3	What is the purpose of the pass statement in Python? A) It skips the current iteration in a loop. B) It is a placeholder that does nothing. C) It terminates the program. D) It is used for conditional statements.	1
4	Which of the following is used to check multiple conditions and choose different actions based on the conditions? A) for loop B) while loop C) if statement D) pass statement	1
Section B: Short Answer Questions (2 marks each) Atleast write 4 points		
5	Explain the difference between the for loop and the while loop in Python with examples.	2
6	Write a program to print the squares of numbers from 1 to n where n is a user input.	2
7	Find Output <pre> x = 24 while x > 0: print(x) x -= 4 if x == 2: break else: print("Done") </pre>	2
8	Write a Python code snippet using a nested loop to generate a pattern of asterisks in the shape of a right-angled triangle with n rows.	2
9	How does the break statement differ from the continue statement in Python?	2
10	Find Output <pre> python numbers = [1, 2, 3, 4, 5] result = [] for num in numbers: if num % 2 == 0: result.append(str(num * 2)) else: result.append(str(num) * num) output_str = ', '.join(result) print(output_str) </pre>	2
Section C: Descriptive Questions (3 marks each)		
11	Write a Python program that takes a user-input character and prints whether it is number or alphabet.	3

12	Find Output	<pre>text = "I Hello Python Programming, It is 2023 December!" result1 = "" for character in text: if character.isalpha(): result1 += character.upper() else: result1 += " " result2 = result1.split() words = text.split() for word in words: if len(word) < 6 and not word.isdigit(): result2.remove(word.upper()) print(result2)</pre>	3
13	Find Output	<pre>data = [190, 'car', 13, 'bus', 130, ['\$'],'ship', 75, True, 'truck'] final_result = [] for item in data: if type(item) == int and item % 13 == 0: final_result.append(item ** 5) elif type(item) == str: final_result.append(item.upper()) else: final_result.append(type(item)) print(final_result)</pre>	3
14	Explain the concept of a nested loop with an example. How can nested loops be useful in solving certain problems?		3
15	Discuss two common methods for manipulating strings in Python, emphasizing their distinct advantages		3
16	Evaluate the following expressions: a. $101 + 3 - 5 ** 3 // 19 - 3$ b. $7 < 14$ and not ($30 > 25$) or ($100 > 90$) c. $\text{round}(100.0 / 4 + (3 + 2.55), 1)$		3
17	A. Describe the purpose of the join() method in Python with respect to strings. Provide an example illustrating its usage. B. Rewrite the code without errors: $x = \text{int}(\text{"Enter value of x:"})$ for in range [0,10]: if $x=y$ Print($x + y$) C. Rewrite the following code fragment using a for loop.		3
18	Write a Python program that does the following: Takes a list of integers as input. Computes the sum of all even numbers and largest of all odd numbers in the list. Prints the even_sum and largest odd.		3
Section D: Coding Exercise (10 marks)			
19	Write a Python program that accepts a list of strings, counts the number of strings containing the letter 'a', and update the first character of each word of those strings to upper case. Print the results.		10