



INDIAN SCHOOL AL WADI AL KABIR

Assessment - II (2019-20)

Class: XI

Sub: Computer Science

M.M: 70

Date: 14/12/19

Set - I

Time: 3 Hrs.

Qn No.		Marks
1 a)	What is the different from RAM and ROM?	1
1 b)	What are various categories of software?	1
1 c)	What is the difference between an interpreter and a compiler?	1
1 d)	Define: Utility software and Give two examples with their usage.	2
1 e)	Convert: $(111010)_2 = ()_{10}$	1
1 f)	Convert: $(265)_8 = ()_{10}$	1
1 g)	Convert: $(A13B)_{16} = ()_2$	1
1 h)	Convert: $(9825)_{10} = ()_8$	2
1 i)	Convert: $(1011011010100101)_2 = ()_{16}$	
2 a)	Prove the Absorption Law using Truth table. $X + (X \cdot Y) = X$	1
2 b)	Draw the logic circuit for the following: $(A + B' + C') \cdot (A' + B + C)$	2
2 c)	Prove the following Boolean Rule algebraically: $X + X' \cdot Y = X + Y$	2
2 d)	What is the difference between a keyword and an identifier?	1
2 e)	Identify the types of following literals? i) 758.25 ii) "Course 25" iii) True iv) 45	1
2 f)	What will be the output of following code? a, b, c = 10, 5, 20 a, b, c = a + 10, b + 5, a + b print(a, b, c)	1
2 g)	Write a program to input the distance in Meters and convert and display it in Kilo Meters and Meters Format. For Example : If Distance is 2850 meters , then the output should be: Converted Distance = 2 Kilometers and 850 Meters.	2
3 a)	What do you understand by term "Immutable"? Give Examples.	1
3 b)	What will be the output of the following code segment? $x = 20 + 15 + 3 / 4$ $y = 20 + \text{int} (15 + 3 / 4)$ $z = 20 + \text{float} (15 + 3 / 4)$ $w = 20 + \text{int} (15 + 3.0 / 4.0)$	2

	<code>print(x, y, z, w)</code>	
3 c)	Write a program to obtain x, y and z from user and calculate expression: $8x^5 + 9y^3 + 10z^2 + 50$	2
4 a)	What are the determinable or Non-determinable Loop in Python.	1
4 b)	Illustrate the use of String Concatenation operator in python with an example.	1
4 c)	What are Nested Lists? Give example.	1
4 d)	Write a program to print the following pattern 5 4 3 2 1 5 4 3 2 5 4 3 5 4 5	2
4 e)	Predict the output of the following codes (i) and (ii): (i) Code 1: Sum = 0 a = 20 for k in range (0, a, 7): print (k * 2) (ii) Code 2: count = 0 for k in range (50, 100, 10): if k % 6 == 0: count = count + 1 print("Number = ", k) print("Count = ", count)	2
4 f)	Given a string S1 = "MULTIMEDIA WORKSHOP", What will be the output of the following code? <code>print(S1[5 : 10])</code> <code>print(S1[5 :])</code> <code>print(S1[-4 :])</code> <code>print(S1[-10 : 13: -1])</code>	2
4 g)	Write a program that Prompts the user for a string, extract all the digits from the string. If there are digits: sum the collected digits together. Print the original string, the digits, the sum of the digits. If there are no digits: print the original string and a message "has no digits".	2
4 h)	Predict the output <code>List1 = [52,25,36,30,25,52,30,48]</code> <code>print(List1.index(30))</code> <code>print(List1.count(25) + 3)</code> <code>List1.append(List1.count(36))</code> <code>print(List1)</code> <code>print(List1[5]+List1[7])</code>	2
4 i)	Write a program that reads a list of decimals, count and display the no. of values less than 25.0.	2

5 a)	Write a Python program to find the sum of the sequence: $1 - \frac{x}{2!} + \frac{x^2}{3!} - \frac{x^3}{4!} + \dots \pm \frac{x^n}{(n+1)!}$	3
5 b)	Write a Python program to count and display the values which are divisible by both 3 and 5 in the given range between two numbers M and N. Also display those values in that range.	3
5 c)	Write a Menu driven program to perform the following operations: 1. To display the Factorial value of a No. using While Loop. 2. To display the Multiplication table of the given no up to 10 terms using for loop. 3. Exit	4
6 a)	Write a Python program that reads and checks whether it is a palindrome string or not using for loop.	3
6 b)	Write a python program that reads a line and a substring. It should then display the number of occurrences of the given string in the line.	3
6 c)	Write a Menu driven program to perform the following operations: 1. To count and display the no. of upper case alphabets in the given string. 2. To replace all the lower case letter by @ and digits by \$. 3. Exit	4
7 a)	Write a program rotates the elements of a list so that the element at the first index moves to the second index, the element in the second index moves to the third index, etc., and the element in the last index moves to the first index.	3
7 b)	Write a program to find the second smallest number of a list of numbers without using sort() method.	3
7 c)	Write a Menu driven program to perform the following operations: 1. To display sum of all the list elements which are divisible by 10 in the given integer list. 2. To count and display all the prime Nos. in the given list integer list of elements. 3. Exit	4

All the Best