



INDIAN SCHOOL AL WADI AL KABIR

Assessment - II (2019-20)

Class: XI

Sub: Computer Science

M.M: 70

Date: 14/12/19

Set - II

Time: 3 Hrs.

Qn No.		Marks
1 a)	Write a short note on any two Language Translators.	1
1 b)	What is the role of Data Bus?	1
1 c)	Write expansion for (i) EPROM (ii) DRAM	1
1 d)	What is the function of memory? Write any four measuring units.	2
1 e)	Convert: $(101110)_2 = ()_{10}$	1
1 f)	Convert: $(430)_8 = ()_{10}$	1
1 g)	Convert: $(7DE5)_{16} = ()_2$	1
1 h)	Convert: $(3978)_{10} = ()_8$	2
1 i)	Convert: $(1001101100101110)_2 = ()_{16}$	
2 a)	Prove the Absorption Law using Truth table. $X \cdot (X + Y) = X$	1
2 b)	Draw the logic circuit for the following: $(A' + B + C') \cdot (A + B' + C)$	2
2 c)	State and Prove any one De Morgan's Theorem.	2
2 d)	What are literals in Python? Give two types with examples.	1
2 e)	Identify the types of following literals? i) "75.35" ii) 75.35 iii) 5000 iv) False	1
2 f)	What will be the output of following code? a, b, c = 20, 10, 50 a, b, c = a + 10, b + 5, a + b print(a, b, c)	1
2 g)	Write a program to input the distance in Kilo meters and convert and display it in Meters Format. For Example : If Distance is 3.75 Kilo meters , then the output should be: Converted Distance = 3750 Meters.	2
3 a)	What do you understand by term "Mutable"? Give Examples.	1
3 b)	What will be the output of the following code segment? x = 50 + 25 + 7 / 8 y = 50 + int (25 + 7 / 8) z = 50 + float (25 + 7 / 8) w = 50 + int (25 + 7 / 8)	2

	<code>print(x, y, z, w)</code>	
3 c)	Write a program to obtain x, y and z from user and calculate expression: $15x^7 + 30y^5 - 10z^3 + 100$	2
4 a)	Write a note on Loop Else statement with an example.	1
4 b)	Illustrate the use of String Replication operator in python with an example.	1
4 c)	How are lists are different from Strings when both are the type of Sequence.	1
4 d)	Write a program to print the following pattern 5 5 4 2 5 4 3 5 4 3 2 5 4 3 2 1	2
4 e)	Predict the output of the following codes (i) and (ii): (i) Code 1: Sum = 75 a = 20 for k in range (0, a, 7): print (k * 2) (ii) Code 2: count = 0 for k in range (100, 70, -7): if k % 4 == 0: count = count + 1 print("Number = ", k) print("Count = ", count)	2
4 f)	Given a string S1 = "SUPER SPORTS PARK", What will be the output of the following code? <code>print(S1[6 : 12])</code> <code>print(S1[6 :])</code> <code>print(S1[-4 :])</code> <code>print(S1[-10 : 11])</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 average of the digits. If there are no digits: print the original string and a message "has no digits".	2
4 h)	Predict the output List1 = [52,25,36,30,25,52,30,48] <code>print(List1.index(36))</code> <code>print(List1.count(30) + 3)</code> <code>List1.append(List1.count(25))</code> <code>print(List1)</code> <code>print(List1[5] - List1[3])</code>	2
4 i)	Write a program that reads a list of decimals, count and display the no. of values more than 150.0.	2

5 a)	Write a Python program to find the sum of the sequence: $x + \frac{x}{3!} + \frac{x^2}{4!} + \frac{x^3}{5!} + \dots + \frac{x^n}{(n+2)!}$	3
5 b)	Write a Python program to count and display the values which are divisible by 6 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 all the factors of a No. using for Loop. 2. To display the all the prime Nos between two numbers X and Y using while loop. 3. Exit	4
6 a)	Write a Python program that reads and count the no. of special characters in a string.	3
6 b)	Write a program that read a line of text and should then print the original sentence(s) and the following statistics relating to the sentence(s): No. of Words, No. of characters (including white-space) and Percentage of characters that are alpha-numeric.	3
6 c)	Write a Menu driven program to perform the following operations: 1. To count and display the no. of lower case alphabets in the given string. 2. To replace all the upper 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 biggest 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 elements which are divisible by 5 in the given integer list of elements. 2. To count and display all the Odd Numbers and Even Numbers in the given list integer list of elements. 3. Exit	4

All the Best