Class XI Sample Paper (2023-24)
Subject - Informatics Practices

Max Marks : 70   Time Allowed: 3 Hours

Instructions :
- Programming language - Python
- There are four sections:
  (i) Section A contains MCQ or VSA (Question 1 -21) and 1 mark each.
  (ii) Section B contains 10 questions of 2 marks each. (Question 22-30)
  (iii) Section C contains 7 questions of 3 marks each. (Questions 31-37)
  (iv) Section D contains 2 questions of 4 marks each. (Questions 38-39)

	Section - A	
1.	Evaluate the following expression with precedence of operator: X = 2* 3/ 5 + 10 //3 - 1	1
2.	Consider a declaration L = [1, 'Python', '3.14']. Which of the following represents the data type of L? a. List b. Tuple c. dictionary d. string	1
3.	Write following arithmetic expressions using operators in Python: $x = a^3 + b^3 + c^3$	1
4.	What will be the output of statement print('Bye' == 'BYE') ? a. True b. False c. 1 d. 0	1
5.	What will be the output of the following: s = 'PYTHON' s1= s[::-1] print(s1)	1
6.	Write statement in Python to find absolute value of -100.	1
7.	Who developed Python language? a. Guido Van Rossum b. Wes Mckenny c. John Arthur d. Bill Gates	1
8.	In print() function, the default value for **sep argument** is _____ a. '\n' b. ' ' c. '@' d. '\t'	1
9.	What is the output of this expression, 3*1**3? a. 27 b. 9 c. 3 d. 1	1
10.	What will type(x) print if x="MAMS"? a. <class 'str'> b. <class 'float'>	1

	c. <class 'int'> d. <class 'char'>	
11.	Identify the invalid identifier: a. uf# b. Num1 c. _rno d. While	1
12.	1024 bytes=_____ a. 1 KB b. 1 PB c. 1 GB d. 1 TB	1
13.	RAM and ROM are example of _____ memory. a. Secondary b. Primary c. Tertiary d. None	1
14.	Name output device used to make hard copy of text file.	1
15.	_____operations allow us to create new list by taking out elements from an existing list. a. Concatenation b. Merging c. Slicing d. Replication	1
16.	_____ is each element of the list or traverse a list using a for loop or a while loop. a. Writing b. Traversing c. Slicing d. Joining	1
17.	_____returns the length or total number of elements of list1. a. range(list1) b. len(list1) c. append(list1) d. count(list1)	1
18.	Write the command to display value 32 here in the list: Marks=[['11A',34],['11B', 32]]	1
19.	Lists are _____ a. Immutable b. Mutable c. Both d. None	1

20.	Which of these about a list is false?
	            a) The values of a list can be accessed using :
	            b) List can hold only similar type of data.
	            c) List index begin with 0
	            d) Lists are mutable
		1

21.	_____ function deletes all the items of the list. a. clean() b. destroy() c. clear() d. delete()	1
	Section - II	

22.	Find the output of the following:
	x, y =10, 15
	if (x >= y):
	    z = x + y
	else:
	    z = x -y
	z = z ** 2
	print("result =", z)
		2

23.	Rewrite the following program after finding and correcting syntactical errors and underlining it. 2 a,b = 0 if (a = b) a +b = c print z	2
24.	What will be the output of the following code: A = 3 – 4 + 10 B = 5 * 6 C = 7.0/2.0 D = "Hello" * 3 print("Value are :", A. B, C, D)	2
25.	Given a string str1="Examination", what will be the values of? a. str1[-5] b. str1[4]	2
26.	Write a program to accept the weight of three persons and display the heaviest one.	2
27.	Write a Python program to accept name from user and a number to repeat the name to print. Print name n times (name and n as user input) for example Input Name : Mahima Input Number to repeat : 3 MahimaMahimaMahima	2
28.	Write a Python program that display True if sum of both the number is 20 or any of the number is 20, otherwise it will display False. Input: a =12 b = 8 Output: True Input: a=20 b=10 Output: True Input : a=10 b=8 Output: False	2
29.	"Comments are easy way to enhance readability and understanding of the program." Elaborate with example.	2
30.	When are lists useful?	2
	Section - II	
31.	Write a program that takes name of student, marks (out of 100) of 3 subjects from user and calculate total marks, percentage and grade as per the following criteria: Percentage Grade >=75 A	3

	>=60 and <75 B <60 C	
32.	Write a menu driven program to calculate: Area of circle[A=πr2] Area of square [A=a*a]	3
33.	Explain the purpose of following: 1) Cache 2) Application Software 3) ALU	3
34.	Find out output of the following code fragment: >>>list1= ["Kathak", "Kathakali", "Odissi", "Manipuri", "Kuchipudi"] >>>list2=[100, 200, 300, 400, 500,600] >>>list3= list1[:] >>>list4= list2[2:5] >>>print(list3) >>>print(list4) >>>print(list1[::-2])	3
35.	What do you mean by iteration constructs? Give code example of 2 types of loops.	3
36.	Write a python code to create a nested list to store info of your 4 friends with their phone numbers.	3
37.	Write a program to count frequency of a given element (take input) in a list of numbers. For example: L1=[2,4,6,2,9,1,2] here, frequency of 2 is 3 times.	3
	Section-II **Both the Case study based questions are compulsory.**	
38.	WAP to print the Discount in Rupees for a salesman. The Discount is based on the following conditions: Sales Dis % < Rs. 5000 5% Rs. 5000 to Rs. 10000 8% Above Rs. 10000 10% [Dis=Sales*)/100] ,[TotalAmount=Sales-Dis] After calculating discount once, it should prompt user "Do you wish to calculate more?" and program should continue till user presses 'Y'.	4
39.	Consider the string= "Final Exam 2020 " Write statements in python to implement the following: a. To replace all the occurrences of 'a' in the string with '*'. b. To display last four characters.	4