SET 3

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CUMULATIVE TEST (HALF YEARLY EXAM) – 2023-24

Subject :Informatics Practices

CLASS XI

Time allotted :3 hrs   **Max Marks 70**

General Instructions:

1. Section A has 18 questions carrying 01 mark each.
2. Section B has 07 Very Short Answer type questions carrying 02 marks each.
3. Section C has 05 Short Answer type questions carrying 03 marks each.
4. Section D has 02 questions carrying 04 marks each.
5. Section E has 03 questions carrying 05 marks each

	Section A	
1	This is the type of memory in which data is lost, when the power is switched OFF. (A) Impact (B) Volatile (C) Non-Impact (D) Non-volatile	1
2	Suppose L is a list as below:- L = ["Anushka", [6,7,8], 17, "Raman"] Predict the output of the following statement:- **print(L [1:2])** (A) [6,7,8] (B) [[6,7,8]] (C) [6,7,8] ,3 (D) Error	1
3	_____ generation of computers is still under development. A) Fourth Generation B) Fifth Generation C) Sixth Generation D) Seventh Generation	1
4	Which statement is used to iterate itself over a range of values or a sequence? (A) if (B) while (C) for (D) do-while	1
5	Ananya is trying to create a string. Help her to identify the correct way to declare string variable in Python from the followings:- (A) fruit = (banana) (B) fruit = "banana' (C) fruit = banana (D) fruit = "banana"	1

6	Identify the odd one from the followings. A) MySQL B) Microsoft Access C) SQL Server D) Google	1

7	Anukta wrote the following code in Pytho
	    D1 = { "Ravi" : 48, "Jatin" :
	    D2 = {"Raj" : 59, "Prem" : ⌐
			D1 > D2
			(A) True (B) False
			(C) Error (C) None

8	State whether the following statement is True or False. **"The if statement is a decision making statement."**	1

9	Rajesh wants to sort a dictionary in ascending order of keys. Help him to find the best suitable method from the followings?
	    (A) Sort( )
	    (B) Sort_keys( )
	    (C) Index( )
	    (D) Sorted( )
		1

10	In a dictionary the elements are accessed through
	    (A) Keys
	    (B) Values
	    (C) Labels
	    (D) None of these
		1

11	Amit is searching for the python programs, he saved earlier. Suggest him, which type of files he should have to serach for python programs.
	    (A) .pt
	    (B) .pwy
	    (C) .py or .pyw
	    (D) Yppy
		1

12	Identify the wrong statement from the followings?
	    (A) A=b=c=20
	    (B) Abc=20 30 40
	    (C) A,b,c=78,15,36
	    (D) A_c_b=256
		1

13	A combination of attributes that can serve as Primary key is known as :
	    (A) Alternate Key
	    (B) Foreign Key
	    (C) Combined Primary Key
	    (D) None of the above
		1

14	If statement comes in which category of statements?
	    (a) Sequential statements
	    (b) Conditional
	    (c) Iterative
	    (d) Loop
		1

15	Examples of utility software are:
	    (A) Text editor
	    (B) Backup
	    (C) Defragmenter
	    (D) All of these
		1

16	Integrated circuits were introduced in _____ generation of computers.	1

	(a) First generation (b) Second generation (c) Third generation (d) Four generation	
17	**Assertion(A) :** Each component of a programming statement is known as token. **Reasoning (R)** : Token is not executed by Python interpreter , only used in programming. (i)Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True	1
18	**Assertion (A)** :Data is stored inside RAM for future retrieval. Reasoning (R): Secondary memory holds the data inside the computer system permanently. (i)Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True	1
	Section B	
19	Consider the table EMP given below and identify the Primary Key, Alternate Key(s) and Candidate Keys. The attributes of EMP table are : Empid, Emp_name, Dept_no, Age, Aadhar_no, Mobile_no	2

20	Predict the output of the following code segment?
	      myList = [1,2,3,4,5,6,7,8,9,10]
	      for i in range(0,len(myList)):
	         if i%2 == 0:
	           print(myList[i])
		2

21	Write python expression to do the followings:
	  (A) Add remainder of 10/4 to the product of 18*3
	  (B) Find the integral part of quotient when 50 is divided by 10
		2

22	Amit is a student of I.P. and currently studying about the Databases. He always have a strong confusion between the terms Degree and Cardinality. Help him to make a good understanding of these terms with a suitable example.	2

23	Read the python code and do the corrections and also mention the type of error which occurs :
	      36=a
	      If a=15:
	         print('hello')
	      else
	         print(a/0)
		2

24	Write the program to print the following pattern using loops only.
	  1
	  1 2
	  1 2 3
	  1 2 3 4
	
	OR
	
	Write a program to take number from user and display the sum of all the digits present in the number. For example no=123 sum=6
		2

25	Differentiate between interpreter and compiler.	2
	Section C	
26	Sanjeev wants to know about proprietary software and freeware. Explain him about these types along with two suitable examples of each type.	3
27	Following list has the record of student raghav having 'name','rollno',marks in five subjects,percentage. **Strec=['Raghav' , 'A-23' ,[12,34,34,65,23],89.5]** Write python statements to retrieve the following information from the list Strec. (a) To retrieve the Percentage of student (b) To retrieve Marks in the second subject (c) To print Maximum marks of the students (d) To retrieve Rollno of the student (e) To change the name of the student from 'Raman' to 'Dhruv' (f) To insert the grade 'B' at the end of the list	3
28	Write a program to take a number from the user and find out whether the entered number is palindrome or not . For example if entered number is 5225 it is palindrome . If you read number from right side it will be same	3
29	Write a program to find and display the sum of all the values which are ending with 3 from list . Sample list is :[13,78,33,48,94,56,3] output will be 49 **OR** Write a program that takes list and add 10 to even values and 5 to 0dd values. For example input : l=[10,20,30,15,18,40] Output: l=[20,30,40,20,23,50]	3
30	What are the differences between dictionary & list? Create list and dictionary and explain also.	3
	Section D	
31	(a) What is the importance of memory in computer system? (b) Explain briefly the functions of operating system?	4
32	Manya is studying about DBMS. Help her to understand the difference between Database and DBMS? Also explain her any four advantages of DBMS.	4
	Section E	
33	Write a program to input your friend's names and their phone numbers and store them in a dictionary as the key and value pair. Perform the following operations on the dictionary. (A) Display name and phone numbers of all your friends (B) Delete a particular friend from dictionary (C) Modify the phone number of existing friend (D) Display the dictionary in sorted order of names. (E) Check particular friend is present in the dictionary. **OR** (a) What is dictionary? (b) Can sequence operations such as slicing and concatenation be applied to dictionary? Why/ why not? (c) What are the differences between lists and dictionaries?	5

34	(A) Why the Primary memory is termed as "destructive write" memory but "non destructive read memory"?
	(B) Define the following
	    (i) Antivirus
	    (ii) Text Editor
	    (iii) Backup software
		5

35	Answer the following
	    (A) Who developed Python?
	    (B) What is IDLE?
	    (C) Which method is used to take value from user?
	    (D) How many ways are there to work in Python ?
	    (E) How python is cross platform language?
		5