VIKAS BHARATI PUBLIC SCHOOL
SAMPLE QUESTION PAPER
CLASS: XI
INFORMATICS PRACTICES (065)

Time allowed: 3 Hours **Maximum Marks:70**

Q No	Section-A (21 x 1 = 21 Marks)	Marks
1	State whether the following statement is True or False: Python Keywords are also known as Identifiers.	1
2	IGB = _____Bytes (A) 2^{10} (B) 2^{20} (C) 2^{30} (D)1024	1
3	SQL stands for: (A) Standard Query Language (B) Scripting Query Language (C) Simple Query Language (D) Structured Query Language	1
4	How many times "Entry" will print on screen after execution of given code: for x in range (3,9,3): print("Entry") (A) 2 times (B) 3 times (C) 9 times (D) ERROR	1
5	Which among the following is an example for Language Processors (A) Compiler (B) Assembler (C) Interpreter (D)All the Above	1
6	What will be the output of the following code? list1=[1,3] list2=list1 list1[0]=4 print(list2) (A) [1,3] (B) [4,3] (C) [1,4] (D) [1,3,4]	1
7	Evaluate: not(1==1 and 0!=1) (A) True (B) False (C)Error (D)Cannot say	1
8	Rows of a relation are known as the _____. (A) Degree (B) Tuples (C) Entity (D) Attribute	1

9	Which of the following is correct with respect to above Python code? d={"a":3,"b":7} (A) dictionary d is created (B) a and b are the keys of dictionary d. (C) 3 and 7 are the values of dictionary (D) All of the above.	1
10	**Siri** is an example for (A) Natural Language Processing (B) Computer Vision (C)Data Science (D)Virtual Reality.	1
11	Fill in the Blank A candidate key that is not a primary key is called ---------- (A) Super Key (B) Alternate Key (C)Foreign Key (D) Secondary Key	1
12	In IoT , T stands for (A) Technology (B) Traffic (C) Things (D) Technique	1
13	Identify the odd one from the following : (A) Oracle (B) MySQL (C)MS Access (D) Python	1
14	Which among the following is an example for customized software (A) Photoshop (B) MS Excel (C)Windows (D)Hospital Management Software	1
15	Which one of the following attribute can be taken as a primary key? (A) Name (B) Designation (C) EmpId (D) Department	1
16	Which one of these is not an area of AI? (A) Face/Image Recognition (B) Voice Recognition (C) Robotics (D) Web Designing	1
17	SELECT * statement displays all ---------- of a table. (A) Rows (B) Attributes (C) Tuples (D) Domain values	1
18	Identify the data type of T: T = {1:'Anu',2:'Bineesh',3:'Chitra'} (A) List (B) Tuple (C) Dictionary (D) String	1
19	Which of the following identifier names are invalid and why? (A) Serialno1 (B) TotalMarks (C) _Percentage (D) True	1
	Q-20 and Q-21 are Assertion (A) and Reason (R) Type questions. Choose the correct option as:	
	(A) **Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A)** (B) **Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)** (C) **Assertion (A) is True, but Reason (R) is False** (D) **Assertion (A) is False, but Reason (R) is True**	
20	**Assertion (A):** List is mutable data type **Reason (R):** We can update the values of list elements likeLl[1]=5.	1

21	**Assertion (A):** In SQL, **INSERT INTO**is a Data Definition Language (DDL) Command. **Reason (R):** DDL commands are used to create, modify, or remove database structures, such as tables.		1
Q No	**Section-B (7 x 2 = 14 Marks)**		**Marks**
22	(A)	(i) Arrange the memory units in ascending order of storage size MB, KB, TB, GB, Byte (ii) List out any 2 Output Devices	2
		OR	
	(B)	Differentiate RAM and ROM (Mention any 2 points)	
23	Consider the Table ''Infant'' shown below : Table : Infant **ItemCode | Item | DatePurchase | UnitPrice | Discount** 101 | Frock | 2016-01-23 | 700 | 10 102 | Cot | 2015-09-23 | 5000 | 25 103 | Soft Toy | 2016-06-17 | 800 | 10 104 | Baby Socks | 2014-10-16 | 100 | 7 Identify the Degree and cardinality of the table .		2
24	Adrija wants to store the details of IP students in her class. Help her to write suitable SQL queries for the following. (i) To create the database IP . (ii) Also tell her how to start working in that database.		2
25	(A)	Define the following: (i) Machine Learning (ii) Blockchain technology	2
		OR	
	(B)	Explain Natural Language Processing . List out any two NLP applications	
26	Define the term Primary Key in a database. Explain how it is different from a Candidate Key.		2
27	List out any 4 features of Python.		2
28	(A)	Categorize the following commands as DDL or DML: DROP, DELETE, UPDATE, ALTER	2
		OR	
	(B)	Differentiate between char(n) and varchar(n) data types with respect to databases.	
Q No	**Section-C (4 x 3 = 12 Marks)**		**Marks**
29	(i) Differentiate System Software and Application Software with 1 example for each. (ii) Give any 2 examples for Customized software.		**2+1**
30	A) Write a program to accept a list of numbers and replace all numbers greater than or equal to 33 with "PASS" and less than 33 with "FAIL" eg: If the accepted list is [23,45,56,29,90,33], it should be replaced as ["FAIL"," PASS"," PASS"," FAIL"," PASS"," PASS"] **OR** B) Predict the output:		**3**

<table>
<tr><td></td><td>List1=[13,18,11,16,13,18,13]
print(List1.index(13))
print(List1.count(18))
List1[2]=10
List1.append(10)
List1.append(List1.count(10))
print(List1)</td><td></td></tr>
<tr><td>31</td><td>(i) Rewrite the following code in python after removing all the syntax errors. Underline each correction done in the code.
num1, num2 = 10 5
if num1 % num2 = 0
num1+= 20
num2+= 30
Else:
print(Not Divisible)

(ii) Give 2 examples for Immutable datatypes in python</td><td>2+1=3</td></tr>
<tr><td>32</td><td>(A) Consider the following list myList. What will be the output of the code after executing of below code:
myList = [10,20,30,40]
myList.append([50,60])
d=myList.pop(2)
print(d)
print(myList)
OR
(B) Write a program to make 1-D array and 2-D array list and write the output for both</td><td>3</td></tr>
<tr><td>Q No</td><td>Section-D (2 x 4 = 8 Marks)</td><td>Marks</td></tr>
<tr><td>33</td><td>i. Write an SQL query to create the table “Items“ with the following structure-
<table>
<tr><th>Field</th><th>Type</th><th>Constraint</th></tr>
<tr><td>Item_Id</td><td>Varchar(5)</td><td>Primary Key</td></tr>
<tr><td>Item_Name</td><td>Varchar(25)</td><td></td></tr>
<tr><td>Manufacturer</td><td>Varchar(15)</td><td></td></tr>
<tr><td>Color</td><td>Varchar(15)</td><td></td></tr>
<tr><td>Price</td><td>Integer</td><td></td></tr>
<tr><td>Quantity</td><td>Integer</td><td>Not Null</td></tr>
</table>
ii. Write SQL Query to insert the following data in the Items Table
101, Galaxy S30 Ultra, Samsung, Black, 85000, 10</td><td>4</td></tr>
</table>

	(ii) Aman has created a table "Inventory" and forgot to add a column "GST" of data type integer. Write SQL command to add the column in the table. **(iii)** Smita is working on SQL query , but she is getting error in her query.Help her in removing error and writing correct query **select * from Product where price=NULL;**	
34	Write the output of the queries (i) to (iv) based on the table given below: **TABLE: CHIPS** BRAND_NAME | FLAVOUR | PRICE | QUNATITY LAYS | ONION | 10 | 5 LAYS | TOMATO | 20 | 12 UNCLE CHIPS | SPICY | 12 | 10 UNCLE CHIPS | PUDINA | 10 | 12 HALDIRAM | SALTY | 10 | 20 HALDIRAM | TOMATO | 25 | 30 I. Select BRAND_NAME, FLAVOUR from CHIPS where PRICE < > 10; II. Select * from CHIPS where FLAVOUR="TOMATO" and PRICE > 20; III. Select BRAND_NAME from CHIPS where price > 15 and QUANTITY < 15; IV. Select price , price *1.5 from CHIPS where FLAVOUR = "PUDINA";	**4**
Q No	**Section-E (3 x 5 = 15 Marks)**	**Marks**
35	Write python code to create a dictionary of Products with product name as key and price as value .Product name and price must be accepted from the user . The program should then search for particular product by inputting product name and display price of the same on the screen For Example the expected output in the following format. Product = {'Pen' : 20, 'Book': 50 , 'Pencil' : 10 } Enter the Product Name : Book Product Details Found : 'Book': 50 **OR** Consider the given dictionary, D={1:'monday', 2:'Tuesday', 3:'Wednesday',4:'Thursday'} (i) What will be the output of following code: print(D.values()) (ii) What will be the output of D[2] (iii) Write python code to add a new value 'Friday 'with key 5. **(iv)** Write python code to remove the value 'Wednesday' from the dictionary. (v) Which among the following statements will the number of key value pairs in D ? (A) D.count() (B) count(D) (C) len(D) (D) D.index()	**5**

36 | Mr. Manav, a database administrator in "Global Educational and Training Institute" has created following table named "Training" for the upcoming training schedule: | 5

Table : Training:

Training_Id	TName	Topic	City	Fee
ND01	Mr.Renjit	Cyber Security	New Delhi	10000
CH01	Mr.Rajesh	ICT in Education	Chennai	15000
CO01	Ms.Neena	Cyber Security	Cochin	12000
MU01	Ms.Anjali	Data Analysis	Mumbai	NULL
ND02	Mr.Anand	Cyber Security	New Delhi	9000

Help him in writing SQL query for the following purpose:

i. To display details of trainings whose fees in the range 10000 - 15000.
ii. To display the topic of free trainings.
iii. To display all the cities where Cyber Security training is scheduled along with its fee.
iv. To display Trainer name , Topic and Fee of all trainings conducted in Mumbai and Chennai
v. To display the details of all trainings

37 | Consider the Table "INFANT" shown below. | **5**

Table: Infant

ItemCode	Item	DatePurchase	UnitPrice	Discount
101	Frock	2016-01-23	700	10
102	Cot	2015-09-23	5000	25
103	Soft Toy	2016-06-17	800	10
104	Baby Socks	2014-10-16	100	7
105	Baby Suit	2015-09-20	500	5

Write SQL commands based on the Infant table :

I. Display all the rows from infant table
II. Display the details about the Cot.
III. Display the names of items and their unitprice where the date of purchase is after 31 st December , 2015.
IV. Display the name of items whose unit price is between 100 and 1000 (including both values).
V. Delete the details of Soft Toy

OR

Write the output for the following SQL commands:

(i) SELECT DISTINCT DISCOUNT FROM INFANT;
(ii) SELECT ITEM FROM INFANT WHRE DISCOUNT BETWEEN 10 AND 30 ;
(iii) SELECT ITEM, DATEPURCHASE FROM INFANT WHERE DATEPURCHASE < '2015-01-01' ;
(iv) SELECT Item,UnitPrice FROM Infant WHERE UnitPrice<800 AND Discount>5;
(v) SELECT ItemCODE, Item FROM Infant WHERE Discount =10 or Discount=25 ;