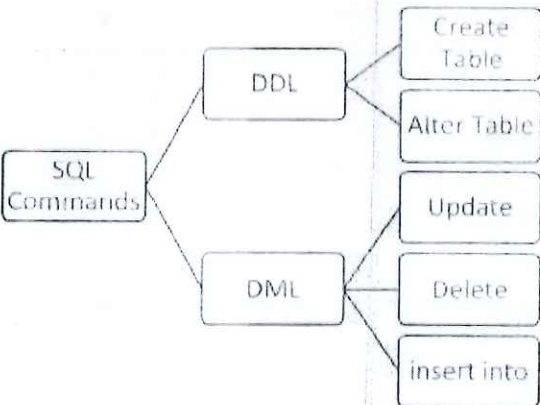M.M. : 70

CLASS-XI
INFORMATICS PRACTICES
Marking Scheme/Hints to Solution

Note : Any other relevant answer, not given herein but given by the candidate be suitably rewarded.

S. No.	Value Points/Key Points	Marks Allotted to each value point/key point	Total Marks
	Section-A		
1.	(c) 13.0	1	1
2.	(c) To provide a scalable and distributed computing environment	1	1
3.	(c) Application software	1	1
4.	Alter table SALES modify sales_made decimal(8,2);	1	1
5.	(b) 10240 bytes	1	1
6.		1	1
7.	(c) Speaker system	1	1

8.	use stu;	1	1
9.	False	1	1
10.	(b) 7	1	1
11.	(b) False	1	1
12.	delete from DEVICES;	1	1
13.	(a) Understanding and generating human-like text and speech.	1	1
14.	(c) Random Access Memory (RAM)	1	1
15.	Cardinality	1	1
16.	20	1	1
17.	(c) A is True but R is False	1	1
18.	(a) Both A and R are true and R is the correct explanation for A.	1	1

Section-B

19.	(a) ROM (Random Access Memory)	1+1	2
	(b) 1. Use Antivirus Software		
	2. Take Regular Data Backups		
	3. Keep Software Updated		
	4. Practice Safe Browsing Habits		
	5. Enable Firewall Protection		
	6. Secure Wi-Fi Network		
	(Any one of the above or any other suitable answer)		

20.	ctr=120 if <u>ctr</u>>250<u>:</u> ctr<u>/</u>=10 print(ctr, "<u>=</u>", ctr+5) (½ mark for each correction)	½×4	2
21.	R P T T (½ mark for each correct line)	½×4	2
22.	Check your code Your code=GHI You can enter the GAME ZONE (½ mark for each correct line)	½×4	2
23.	(a) PCode can become candidate key but ACode is not eligible to become candidate key. (b) All values in the PCode column are unique and not null. The values in ACode column are not unique.	1+1	2
24.	(a) He is getting an error because Player_Id is a primary key and he is inserting NULL value in this column. Null values are not allowed in the Primary key column. (b) insert into score values("P101", "Virender Sehwag", 550, 10); (or any other suitable Player_Id)	1+1	2

25.	*	CHAR : The CHAR data type is fixed-length. It stores a fixed number of characters regardless of the actual length of the data. For example CHAR(10), will always occupy 10 characters, even if the actual data is shorter. Padded spaces are used to fill the remaining space.	1+1	2
	*	VARCHAR : The VARCHAR data type is variable-length, which means it only uses the storage necessary to store the actual data. For example, if "hello" is stored in VARCHAR(10) it will occupy only 5 characters of storage.		

Section-C

26.	(a)	{10: '10', '10': 10}	2+1	3
		(½ mark for each correct value)		
	(b)	items()		
27.	(a)	Sum=0	2+1	3
		for Num in range (100,200,20):		
		Sum=Sum+Num		
		print(Sum)		
		(1 mark for writing correct syntax of for loop		
		1 mark for correctly writing values in the range		
		function)		
	(b)	700		
28.	(a)	MySQL, Microsoft SQL Server, PostgreSQL, Oracle	1+1+1	3
		(any two or any other suitable answer)		

(b) RDBMS helps in:

(1) Reducing Data Redundancy

(2) Controlling Data Inconsistency

(3) Provides security

(4) Maintaing Data Integrity

(Any 2)

(c) Show databases;

OR

(a) Select RollNo, Total+50 from RESULT;

(b) Select Name, Total from RESULT where Name="Bimal" or Name="Dolly";

OR

Select Name, Total from RESULT where RollNo=2 or RollNo=4;

OR

Select Name, Total from Result where Total>=400;

(c) Select RollNo+Total from RESULT;

29.	(a)	SalesManID	1+2	3
	(b)	Create table SALES (SalesManNo integer, SalesManID char(5), SalesMade integer, Zone Char(1)); (or any other appropriate data types choosen)		

30.	(a)	Cloud service model most suitable for organizations that need to host and manage their own software applications	(ii)	Iaas	1+1+1	3
	(b)	Gmail and Hotmail are examples of	(iii)	Saas		
	(c)	Offers a development platform for building, testing and deploying applications.	(i)	Paas		

Section-D

31. (a)

Sensor Type	Purpose
Temperature Sensor	Measures temperature for climate control, weather monitoring and industrial processes.
Light Sensor	Detects light levels for automatic lighting. photography, and display brightness adjustment.
Proximity Sensor	Detects the presence or absence of nearby objets, used in smartphones, robotis, and security system.
Pressure Sensor	Measures pressure for applications like weather forecasting, altimeters, and industrial monitoring.
Motion Sensor	Detects movement and is used in security systems, automatic doors, and gaming controllers.
Humidity Sensor	Measures humidity levels for HVAC systems, weather stations, and agriculture.
Infrared Sensor	Detects infrared radiation and is used in remote controls motion detection, and temperature measurement.
Gas Sensor	Detects the presence and concentration of gases, commonly used in air quality monitoring and industrial safety.
Accelerometer	Measures acceleration and is used in smartphones, fitness trackers and vehicle stability systems.

2+2   4

Gyroscope	Measures anguar velocity and is used in drones, robotics, and image stabilization in cameras.
Ultrasonic Sensor	Uses sound waves to measure distance, employed in obstacle detection, parking systems and robotics.
Magnetic Sensor	Measure magnetic fields for compasses, navigation systems, and proximity detection.

(Any two sensors, the list is not exhaustive)

(1 mark each for two correct sensors and their purpose)

(b) (i) Virtual Reality

(ii) Big Data

32. (a) ['Apple', 'Cherry', 'Kiwi', 'Papaya']   3+1   4

['Berry', 'Kiwi', 'Papaya']

['Apple', 'Cherry', 'Papaya']

(1 mark for each correct line of output)

(b) {'Eng':94, 'Maths':72, 'Science':82, 'SSt':95, 'Hindi':80}
(½ mark for changing Maths:72
½ mark for adding Hindi:80)

Section–E

33. (i) Select GName, PrizeMoney from games;   5

(ii) Select * from games where ScheduleDate>="01/08/2023";

(iii) Update games set PrizeMoney=PrizeMoney+10000 where GName="CHESS";

(iv) Delete from games where Matches<10;

(v) Select GName from games where PrizeMoney between 10000 and 20000;

34.	(I) (i) (a) NULL (As we can not perform any arithmetic operation on NULL)		1	5
	(b) 500		1	
	(ii) No, the above queries will not give the same output because NULL value is NOT same as 0.		½+½	
	(II) Date Datatype		1	
	Default format will be 'YYYY–MM–DD'		1	

<div align="center">OR</div>

(a) Desc STUDENT;

(b) Insert into STUDENT values (5, 1005, "Namita",6, NULL);

(c) Alter table STUDENT add ACTIVITY char(10);

(d) Update STUDENT set ACTIVITY="DRAMA" ;

(e) Select * from STUDENT where Class=7 or Class=8;

35.	(a) STREAM.keys()	5

(b) len(STREAM)

(c) STREAM['C']="Commerce with Maths"

(d) STREAM.pop('N')

(e) STREAM.clear()

<div align="center">OR</div>

(a) NUM.append(67)

(b) NUM.count(12)

(c) NUM.sort()

(d) sum(NUM)

(e) NUM.index(12)