

SAMPLE PAPER – 2

INFORMATICS PRACTICES – XI

TERM - 2

Maximum Marks: 35

Time: 2 hours

General Instructions

1. The question paper is divided into 3 sections – A, B and C
2. Section A, consists of 7 questions (1-7). Each question carries 2 marks.
3. Section B, consists of 3 questions (8-10). Each question carries 3 marks.
4. Section C, consists of 3 questions (11-13). Each question carries 4 marks.
5. Internal choices have been given for question numbers – 1, 4, 8 and 12.

Section –A

Each question carries 2 marks

Q1. What is Artificial Intelligence (AI)? What are some applications of AI? (2)

OR

Dron – a utility of Robotics – can be helpful in the event of a natural calamity. How?

Q2.

(i) What hardware is typically used for virtual reality? (1)

(ii) NLP is a branch of AI that facilitates _____ between humans and computers. (1)

Q3.

(i) Which of the following is not a feature of IoT? (1)

Remotely Controllable, Security, Can turn themselves off if necessary, Wearables

(ii) Where is virtual reality (VR) used from the given options? (1)

a) Training soldiers in combat using battlefield simulation

b) In three – dimensional (3D) films

c) To allow access to buildings

d) To create prototypes of cars or any objects.

Q4. Give one word for the following: (2)

i) The number of tuples (rows) in a relation is called _____

ii) A candidate key that is not the primary key is called a/an _____

iii) Repetition of data in a database is called _____

iv) A field in a database table whose values are the same as the primary key of another table is called:

OR

Differentiate between DDL and DML.

Q5. What is MySQL? What is the purpose of using MySQL? (2)

Q6. Define the following terms with example. (2)

(i) Relation

(ii) Degree

Q7. List the criteria for selecting a primary key of a table. (2)

SECTION – B

Each question carries 3 marks

Q8. . A Sport Academy has a rule that each student must participate in sports activity so each one should give only one preference for sports activity. Suppose there are five students in a batch, each having a unique roll number. The class representative has prepared a list of sports preferences as shown below. Answer the following: (3)

Roll_number	Preference
9	Cricket
13	Football
17	Badminton
17	Football
21	Rocky
24	NULL
NULL	Kabaddi

- Roll number 24 may not be inserted in sports. Can a null value be assigned to that student's reference field?
- Roll number 17 has given two preferences Sports. Which property of relational DBMS is violated here? Can we use any constant for key in the relational DBMS to check against such violation, if any?
- Kabaddi was not chosen by any student. it is possible to have this couple in the sport preferences relation?

OR

- Which SQL clause is used to select specific rows.
- Which SQL clause is used to display the result of an SQL query in ascending or descending order with respect to specified attribute values?
- Which SQL clause is used for pattern matching.

Q9. SBC Hospital maintains a database Doctor – Patient to record the following details about its doctors and their patients.

Doctor (Name, Field, DocID, RoomNo, Salary)

Patient (PatID, OPDNo, DocID, Address, BloodGr)

- i) What is the degree of Doctor and Patient tables? (1)
- ii) Name the attributes which can be used as Primary Key in both tables. (1)
- iii) The hospital wants to access information of a particular patient along with that of the concerned doctor. Name the tables and the key which are required to access these details. (1)

Q10. Sahil wants to create a database **HARDWARE** which has a table **RENTAL**. He wants to make sure that city name is unique and no field is left empty in the table. Write the SQL commands for the fields given below. (3)

RENTAL_ID	INT	PRIMARY KEY
RENTAL_DATE	DATETIME	NOT NULL
INVENTORY_ID	VARCHAR(6)	
CUSTOMER_ID	VARCHAR(6)	
RETURN_DATE	DATETIME	NULL
CITY	VARCHAR(6)	

Section C

Each question carries 4 marks

Q11. Write the output of the queries (i) to (iv) based on the table, STUDENT given below: (4)

SID	Name	Stipend	Subject	Average	Div
1	Karan	400	Physics	68	1
2	Divakar	450	Computers	68	1
3	Divya	300	Chemistry	62	2
4	Arun	350	Physics	63	1
5	Sabina	500	Mathematics	70	1
6	John	400	Chemistry	55	2
7	Robert	250	Physics	72	1
8	Rubina	450	Mathematics	68	1
9	Vikas	500	Computers	62	1
10	Mohan	300	Mathematics	57	2

- i) `SELECT * FROM STUDENT WHERE SNO>8;`
- ii) `SELECT Name, Stipend FROM STUDENT WHERE Subject="Chemistry" OR Subject="Physics";`
- iii) `SELECT * FROM STUDENT WHERE Subject LIKE 'C%' AND Average=68;`

iv) SELECT SID, Name, Average FROM STUDENT WHERE Average Between 68 and 72;

Q12. Satyam, a database analyst has created the following table:

Table: PRODUCT:

ProductCode	Product Name	DateofSale	QtySold	CustomerName	Amount
P001	Pencil	05/10/11	5	Himanshu	25
P002	Eraser	04/01/12	4	Ali	8
P003	Sharpner	09/12/11	6	Deepak	12
P004	Whitener	25/04/11	2	Ankit	30
P005	Glue Pen	20/07/12	3	Ruchi	30

i) Add one column CustEmail of data type VARCHAR and size 30 to the table PRODUCT and also write a command to show the structure of the table. (2)

ii) Write a command to Modify the Amount and increase it by 5, for all products whoes QtySold is less than 4. (2)

OR

Based on the above given table named 'Product', Satyam has executed following queries: (4)

MySql> **DELETE from Product;**

MySql> **DROP TABLE Product;**

What are the above queries doing?

Q13. Write SQL commands for (i) to (iv) on the basis of table Furniture. (4)

Table : Furniture

No	Itemname	Type	Dateofstock	Price	Discount
1	White lotus	Double Bed	23/02/02	30000	25
2	Pink feather	Baby Cot	20/01/02	7000	20
3	Dolphin	Baby cot	19/02/02	9500	20
4	Decent	Office Table	01/01/02	25000	30
5	Comfort Zone	Double Bed	12/01/02	25000	25
6	Donald	Baby Cot	24/02/02	6500	15
7	Royal finish	Office Table	20/02/02	18000	30
8	Royal tiger	Sofa	22/02/02	31000	30
9	Econo sitting	Sofa	13/12/01	9500	25
10	Eating paradise	Dining Table	19/02/02	11500	25
11	WoodComfort	Double Bed	23/03/03	25000	25
12	Old Fox	Sofa	20/02/03	17000	20
13	Micky	Baby Cot	21/02/03	7500	15

- (i) To show all information about the baby cots from the Furniture table.
- (ii) To list the itemname which are priced at more than 15000 from the Furniture table.
- (iii) To list itemname and type of items from the Furniture table in the descending order of itemname.
- (iv) To list the details of all the Furniture whoes price are between 15000 to 35000.

www.learnpython4cbse.com