UNIT TEST 4 – Set A

Computer Science (083)

Class – XII **Max. Marks:35**

General Instructions:

1. This question paper consists of 4 sections – A, B,C and D. Each part is compulsory
2. Section A has 10 questions carrying 01 mark each
3. Section Bhas4 questions carrying 02 marks each
4. Section Chas3 questions carrying 03 marks each
5. Section D has 2 questions carrying 04 marks

	Section A	**10**
1	State True or False Count(*) results in the total number of records including NULL and duplicate values.	1
2	Which of the following functions is not an aggregate function in SQL? a)Round() b) Sum() c) Count () d) Avg ()	1
3	What is the format of date data type in MySQL? a) 'mm-dd-yy' b) 'dd-mm-yyyy' c) 'yyyy-mm-dd' d) 'yy-mm-dd'	1
4	Assertion (A) : The DISTINCT clause eliminates duplicate rows from the results of a SELECT statement Reason(R) : If you use the DISTINCT clause with a column having multiple NULL values, then they will be displayed only once a) Both A and R are true and R is the correct explanation of A b) Both A and R are true and R is not the correct explanation of A c) A is true but R is false d) A is false but R is true	1
5	Assertion (A) : The HAVING clause is used with group by clause to place conditions on groups Reason (R) : Where clause places conditions on individual rows a) Both A and R are true and R is the correct explanation of A b) Both A and R are true and R is not the correct explanation of A c) A is true but R is false d) A is false but R is true	1
6	Relation R1 has 5 tuples and 4 attributes. Relation R2 has 6 tuples and 5 attributes. When a NATURAL JOIN is achieved between R1 and R2, how many attributes would the resultant set have? a) 20 b) 9 c)8 d)10	1
7	Which of the following is not a relational operator in MySQL? a) != b) == c)<> d)<=	1
8	Which of the following is not a datatype in MySQL? a)int b) string c) float d) date	1

9	Which of the following commands is used to remove a database? a) DROP b) REMOVE c) DELETE D)ALTER	1
10	To check whether a value in a table is NULL or not, the _____ operator is used. a) = b) NOT NULL c) IS NULL D) !=	1
	Section B	**8**
11	Differentiate between ALTER and UPDATE commands in SQL Or Differentiate between char(n) varchar(n) datatypes in SQL	2
12	Write SQL statement for the following a) To display all the databases b) To create a database OFFICE	2
13	Categorise the following commands as DDL or DML ALTER, DELETE, DROP, UPDATE	2
14	Explain Foreign key in RDBMS. Give suitable example to support your answer.	2
	Section C	9
15	a) consider the following tables Teacher and Dept. Table: Teacher +-----+------+------------+--------+--------+ | Tno | Name | Dob | Salary | Deptno | +-----+------+------------+--------+--------+ | 101 | Amal | 1980-03-18 | 50000 | 10 | | 102 | Suma | 1978-04-10 | 38000 | 20 | | 103 | Diya | 1988-01-12 | 48000 | 10 | +-----+------+------------+--------+--------+ Table: Dept +--------+---------+ | deptno | dname | +--------+---------+ | 30 | IT | | 20 | Maths | | 10 | Science | +--------+---------+ What will be the output of the following statement? **SELECT * FROM Teacher NATURAL JOIN Dept;**	1+2

b) write the output of the queries (i) to (iv) based on following table.
Table: WORKER

WNO	NAME	DOJ	DOB	GENDER	DCODE
1001	George K	2013-09-02	1991-09-01	MALE	D01
1002	Ryma Sen	2012-12-11	1990-12-15	FEMALE	D03
1003	Mohitesh	2013-02-03	1987-09-04	MALE	D05
1007	Anil Jha	2014-01-17	1984-10-19	MALE	D04
1004	Manila Sahai	2012-12-09	1986-11-14	FEMALE	D01
1005	R SAHAY	2013-11-18	1987-03-31	MALE	D02
1006	Jaya Priya	2014-06-09	1985-06-23	FEMALE	D05

(i) SELECT COUNT(*), DCODE FROM WORKER GROUP BY DCODE HAVING COUNT(*)>1;
(ii) SELECT DISTINCT DCODE FROM WORKER;
(iii) SELECT NAME FROM WORKER WHERE GENDER='MALE' ORDER BY NAME;
(iv) SELECT MAX(DOJ), MIN(DOB) FROM WORKER;

16 Write the outputs for SQL queries (i) to (iv) based on the following tables. 2+1

TABLE : ACCOUNT

ANO	ANAME	ADDRESS
101	Nirja Singh	Bangalore
102	Rohan Gupta	Chennai
103	Ali Reza	Hyderabad
104	Rishabh Jain	Chennai
105	Simran Kaur	Chandigarh

TABLE : TRANSACT

TRNO	ANO	AMOUNT	TYPE	DOT
T001	101	2500	Withdraw	2017-12-21
T002	103	3000	Deposit	2017-06-01
T003	102	2000	Withdraw	2017-05-12
T004	103	1000	Deposit	2017-10-22
T005	101	12000	Deposit	2017-11-06

(i)SELECT ANO, ANAME FROM ACCOUNT
WHERE ADDRESS NOT IN ('Chennai', 'Bangalore');
(ii) SELECT A.ANO,ANAME,AMOUNT,TYPE FROM ACCOUNT A,TRANSACT T WHERE A.ANO=T.ANO AND AMOUNT>2500;
(iii) SELECT ANO, COUNT(*), MIN(AMOUNT) FROM TRANSACT
GROUP BY ANO HAVING COUNT(*)> 1;
(iv) SELECT COUNT(*), SUM(AMOUNT) FROM TRANSACT
WHERE DOT <= '2017-06-01';
b)Write SQL command to view all the tables in the database BANK.

17	A Book store is considering to maintain their inventory using SQL to store the data. As a database administer, Rahul has decided to create a table with the following details. a)Write SQL query for the table creation: • Name of database – BOOKSTORE • Name of table – BOOK • The attribute of BOOK are as follows: Code – alphanumeric of size 10 primary key Bname – character of size 30 Cust_code – float Price – numeric Type – character of size 25 (b) Now Rahul wants to display the structure of the table BOOK, i.e, name of the attributes and their respective data types that he has used in the table. Write the query to display the same. (c) Rahul wants to remove the table BOOK. Which command will he use from the following: (a) DROP TABLE BOOK; (b) DELETE FROM BOOK; (c) DROP DATABASE BOOK STORE; (d) DELETE BOOKS FROM BOOK;	3
	Section D	**8**
18	Consider the following tables Product and Client. WriteSQL commands for the statementS (i) to (iv) Table: **PRODUCT** **P_ID** | **Product Name** | **Manufacturer** | **Price** TP01 | Talcom Powder | LAK | 40 FW05 | Face Wash | ABC | 45 BS01 | Bath Soap | ABC | 55 SH06 | Shampoo | XYZ | 120 FW12 | Face Wash | XYZ | 95 Table: **CLIENT** **C_ID** | **Client Name** | **City** | **P_ID** 01 | Cosmetic Shop | Delhi | FW05 06 | Total Health | Mumbai | BS01 12 | Live Life | Delhi | SH06 15 | Pretty Woman | Delhi | FW12 16 | Dreams | Banglore | TP01	4

(i) To display the details of those Clients whose city is Delhi.
(ii)To display the details of Products whose Price is in therange of 50 to 100 (Bothvalues included).
(iii) To display the ClientName, City from table Client, andProductName and Price from table Product, with theircorresponding matching P_ID.Product,Client where Product.P_ID=Client.P_ID.
(iv) To increase the Price of all Products by 10

18 Aarav creates a table STOCK with a set of records to maintain the stock details of different products. 1+1+2

Id	Product	Qty	Price	Transaction Date
101	Plastic Folder 12"	100	3400	2014-12-14
104	Pen Stand Standard	200	4500	2015-01-31
105	Stapler Medium	250	1200	2015-02-28
109	Punching Machine Big	200	1400	2015-03-12
103	Stapler Mini	100	1500	2015-02-02

Based on the data given above answer the following questions:

i) Identify the most appropriate column, which can be considered as Primary key.

ii) If one column is added and two rows are deleted from the table STOCK, what will be the new degree and cardinality of the above table?

iii) Write the statements to:

a. Insert the following record into the table STOCK
Id - 102, Product- Pencil, Qty- 300, Price-1500, Transaction Date- 2014-12-23.
b. Increase the price by 2% whose Id is >=105

OR (Option for part iii only)

iii) Write the statements to:

a. Delete the records of productswhose Transaction date is less than 2015-01-01
b. Add a column Description in the table with datatype as varchar with 50 characters