

KENDRIYA VIDYALAYA – BHU, VARANASI**MONTHLY TEST – AUGUST 2024****Class: XII****Subject: Informatics Practices****Max. marks: 40M****Time: 1.5 hours**

1.	Rohan wants to calculate 2^5 in MySQL using available numeric functions. Suggest him which function to use? 1. exp () 2.pow() 3.power () 4.expo ()	1M
2.	Which function is used to check whether a given string is containing a word or not? 1. instr() 2.mid() 3.substr() 4.substring()	1M
3.	A table named "Student" contains name, roll number and address of 20 students. Mention the degree and cardinality of the table respectively: 1. 20,3 2. 3,20 3. 60,3 4. 3,60	1M
4.	Which command can be use with SELECT to display only unique values in a column. 1. UNIQUE 2.DISTINCT 3. NOT NULL 4.NULL	1M
5.	What will be returned by the given query? SELECT ROUND (153.669,2); 1. 153.6 2. 153.66 3. 153.67 4. 153.7	1M
6.	Help Ritesh to write the command to display the name of the youngest student? 1. select name,min(DOB) from student ; 2. select name,max(DOB) from student ; 3. select name,min(DOB) from student group by name ; 4. select name,maximum(DOB) from student;	1M
7.	Which keyword can be used to assign meaningful column name to the results of SELECT queries using the SQL built-in functions? 1. ALIAS 2. AS 3.REN 4.RENAME	1M
8.	In a given table, there can be only one foreign key. State whether this statement is True or False.	1M

	Assertion and Reason Based questions																					
	A) Both A and R are true and R is the correct explanation for A B) Both A and R are true and R is not the correct explanation for A C) A is True but R is False D) A is false but R is True																					
9.	Assertion: The Output of the COUNT Function will be a single row table unless it is written along with GROUP BY Clause. Reason: The COUNT Function counts the total number of rows satisfying a condition and returns the numeric value.	1M																				
10.	Assertion: - In SQL we cannot calculate age from the given DOB. Reason: - Year () function returns the year from the date passed.	1M																				
	Short/Long Answer Questions																					
11.	Gokul is using a table Employee. It has the following columns: Code, Name, Salary, Dept_code He wants to display maximum salary department wise. He wrote the following command: SELECT Dept_code, Max(Salary) FROM Employee; But he did not get the desired result. Rewrite the above query with necessary changes to help him get the desired output and explain why above query does not work?	2M																				
12.	Meena is learning about database terms. She is a bit confused about the HAVING clause and WHERE clause. Help her to understand the difference between them along with suitable examples.	2M																				
13.	Amar is executing date functions on MySQL but he is confused between sysdate() and now() functions, so help him to clear his confusion with example.	2M																				
14.	Write down any 4 foreign key constraints.	2M																				
15.	Explain the difference between output of the below queries: Select count(*) from table_name; Select count(column_name) from table_name;	2M																				
16.	Mr Rohan is working on a MySQL table ‘Sports’ having following records: Table: - Sports <table><tr><td>Rno</td><td>Class</td><td>Name</td><td>Game</td><td>City</td></tr><tr><td>10</td><td>7</td><td>Sammer</td><td>Cricket</td><td>Shimla</td></tr><tr><td>11</td><td>8</td><td>Sujit</td><td>Tennis</td><td>Goa</td></tr><tr><td>12</td><td>7</td><td>Kamal</td><td>Swimming</td><td>Mumbai</td></tr></table>	Rno	Class	Name	Game	City	10	7	Sammer	Cricket	Shimla	11	8	Sujit	Tennis	Goa	12	7	Kamal	Swimming	Mumbai	3M
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13	7	Venna	Tennis	Chandigarh
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Mr Rohan wants to perform following task on the table, write queries to help him:

- To fetch the first 4 characters from the city.
- To display the last 3 characters of the player's name in uppercase.
- To display the position where the character 'a' was first found in each City.

17. Write suitable SQL query for the following:
- Display 7 characters extracted from 7th left character onwards from the string 'INDIA SHINING'.
 - Display the position of occurrence of string 'COME' in the string 'WELCOME WORLD'.
 - Display the remainder of 100 divided by 9

3M

18. Carefully observe the following table named 'student':

Table: student

Sid	Name	Category	Class	Marks
1	Ajay	GEN	6	450
2	Radha	ST	10	350
3	Mahesh	SC	11	260
4	Manvi	OBC	9	300
5	Ajay	OBC	10	410
6	Pooja	GEN	8	170

Write SQL queries for the following:

- To display the records in decreasing order of Name.
- To display category and category wise total Marks of Student.
- To display all records where either the first or the second character of Name is "a".
- To display data of all students that have scored marks in range of 150 and 350.

4M

19. Consider the following WORKER and DEPT tables.
Write SQL queries for (i) to (v)

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 Sahani	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

DEPT

DCode	DptName
D01	IT
D02	HR
D03	TT
D04	TA
D05	Training

5M

- (i) To display WNO, NAME, GENDER from the table WORKER in descending order of WNO, who are born on Mondays.
- (ii) To display the NAME of all the FEMALE workers from the table WORKER.
- (iii) To display the count of male and female employees.
- (iv) To display the Name of all worker and name of their department where they work if they have joined in 2013.
- (v) To display Name of youngest worker in each department with his age.

20. Answer below questions based on the table CARMARKET.

5M

Table: CARMARKET

CARCODE	CARNAME	COMPANY	COLOR	COST	DOM
C01	BALENO	SUZUKI	BLUE	5.90	2019-11-07
CO2	INDIGO	TATA	SILVER	12.90	2020-10-15
C03	GLC	MERCEDES	WHITE	62.38	2020-01-20
C04	A6	AUDI	RED	58.55	2018-12-29
C05	INNOVA	TOYOTA	BLACK	32.82	2017-11-10
C06	WAGONOR	SUZUKI	WHITE	12.11	2016-11-11
C07	BREZZA	SUZUKI	GOLD	9.80	2016-10-03

- 1) SELECT COUNT(*), YEAR(dom) FROM carmarket GROUP BY YEAR(dom);
- 2) SELECT COMPANY, AVG(COST) FROM CARMARKET GROUP BY COMPANY;
- 3) SELECT COUNT(CARNAME) FROM CARMARKET GROUP BY COLOR HAVING COUNT(COLOR) > 1;
- 4) SELECT * FROM CARMARKET WHERE CARNAME LIKE "%A";
- 5) SELECT CARCODE, COST, DOM FROM CARMARKET WHERE CARCODE IN ("C06", "CO4", "C07", "C01") ORDER BY COST;