

**T.Y.B.Com. Sem.-V CSA Practical September 2023**

1	(a)	Display the names of existing databases in MySQL.						
	(b)	Create a new table called DEPT in the database ATLAS with the following columns:						
		<b>Columns</b>	<b>Column Name</b>	<b>Data type and Characteristics</b>				
		Employee Id	empid	smallint unsigned primary key				
		Employee Name	empname	varchar(20)				
		Department Id	deptid	smallint				
		City	city	varchar(20)				
		Manager Id	mgrid	smallint				
		Salary	Salary	decimal(7,2)				
		Date of Joining	doj	date				
	(c)	Verify the DEPT table is created.						
	(d)	Display the structure of DEPT Table.						
	(e)	Insert the following records into the DEPT table:						
		<b>empid</b>	<b>empname</b>	<b>deptid</b>	<b>city</b>	<b>mgrid</b>	<b>salary</b>	<b>doj</b>
		1	Feroz	102	Mumbai	501	23000	2002-08-10
		2	Asif	101	Jaipur	502	34000	2002-08-05
		3	Ansari	102	Pune	503	45000	2001-06-11
		4	Shoaib	103	Pune	504	20000	2004-09-06
		5	Farooq	102	Mumbai	502	30000	2000-09-10
	(f)	Display all rows of DEPT table.						
	(g)	Display the salary and 10% of the salary as BONUS along with the employee name from the table DEPT.						
	(h)	Display the names in capital and the year of joining from the table DEPT.						

2	(a)	Write a MySQL statement to create a table named EMP containing information of the employees with the following columns, Employee Identification Number (EID, integer, primary key), Employee Name (NAME, character, variable width of 15 columns), Basic Salary (BSAL with 5 integers and 2 decimal places should not be negative), DA (DA with 5 integer and 2 decimal places), HRA ( HRA with 4 integer and 2 decimal places), Total Salary (TSAL with 6 integer and 2 decimal places should not be negative) and date of birth (DOB, date).
	(b)	Verify that the EMP table is created.
	(c)	Show the structure of EMP table.

3	There exists a table called NCARS having columns Registration Number (REGNO, Character), Model of the car, (MAKE, Character), Date of purchase (DOP, date), and value of car. (VALUE, numeric).
	Write MySQL statements for the following :
	(i) Display the structure of the table.
	(ii) Add this row of data 'MH 01 A 2053', 'HONDA', '2013-10-23', 1000000 to this table.
	(iii) Change the MAKE of car having Registration No. MH 02 XJ 1230 to 'Maruti'.
	(iv) Add a new column Date of Sale (DOS, date) to this table.
	(v) Delete all the rows from this table where the date of purchase is before June 15, 2001.
	(vi) Rename the table NCARS to CARS.
	(vii) Delete the table NCARS.

4	There exists a table called DEPT containing columns Employee Id (EMPID, integer), Employee Name (EMPNAME, Character), Department Id (DEPTID, integer), City (CITY, Character), Manager Id(MGRID, integer), Salary(SALARY, 5 integers and 2 decimals) and Date of joining (DOJ, date).
	Write MySQL statements for the following:
	(i) Display all the rows and columns from the table DEPT.
	(ii) Display the columns employee id, employee name and salary from table DEPT.
	(iii) Display the column empid substituted by the name(heading) employeedid from the table DEPT.
	(iv) Display the salary and 10% of the salary as BONUS along with the employee name from the table DEPT.
	(v) Display the names in capital and the year of joining from the table DEPT.
	(vi) Display the 3 <sup>rd</sup> and 4 <sup>th</sup> character of city, employee name, the length of the employee name and the last alphabet in the employee name from the table DEPT.
	(vii) Display only the rows containing the city 'Mumbai'.
	(viii) Display the employee Id, employee name, salary and date of joining for salary greater than 30000.

(ix)	Display the employee id, city and Date of joining if date of joining is after Jan 1, 2000.
(x)	Display all the rows where the city column is not empty.

5	There exists a table called WAGES containing columns Employee Id (E_ID, Integer, primary key), Employee name (NAME, Character), Department name (DEP, Character) and basic pay (BASIC, 5 integer and 2 decimal places).
	Write MySQL statements for the following :
(i)	Display the highest, lowest, sum and average of basic pay.
(ii)	Display the Department name, Number of employees in that department and total of the basic pay of the employees grouped department wise.
(iii)	Display the department name and the minimum and maximum basic pay grouped department wise.
(iv)	Display the Department name, total of the basic pay and average of the basic pay grouped department wise.

6	There exists a table STUDENT containing columns student's roll number (RNO, Integer, primary key), student's name (SNAME, Character) and Date of birth (DOB, date). There exists another table EXAM containing columns roll number (RNO, primary key), class (CLASS, Character), total marks (TOT, Integer). Write MySQL statement for the following:
(i)	Display the Roll number, Name and the Class of all students.
(ii)	Display the Roll number, Name and the total marks of the students whose total marks are 350 or more.
(iii)	Display the Roll number, Name and total marks of the students whose total marks are 500 or more.
(iv)	Display the Roll number, Name and Class of T.Y.B.Com students.

7	Explain the following built in function in MySQL		
	a) Now()	b) Ltrim()	c) Round()
	d) Dayname()	e) Upper()	f) Left()
	g) Trim()		

8	<table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Item Name</td> <td>January</td> <td>February</td> </tr> <tr> <td>2</td> <td>Mouse</td> <td>6000</td> <td>7300</td> </tr> <tr> <td>3</td> <td>Monitor</td> <td>50000</td> <td>45000</td> </tr> <tr> <td>4</td> <td>Keyboard</td> <td>6100</td> <td>6300</td> </tr> <tr> <td>5</td> <td>Printer</td> <td>65000</td> <td>80000</td> </tr> <tr> <td>6</td> <td>Pen Drive</td> <td>3250</td> <td>3100</td> </tr> <tr> <td>7</td> <td>Total</td> <td></td> <td></td> </tr> <tr> <td>8</td> <td>Average</td> <td></td> <td></td> </tr> <tr> <td>9</td> <td>Highest</td> <td></td> <td></td> </tr> <tr> <td>10</td> <td>Lowest</td> <td></td> <td></td> </tr> </tbody> </table> <p>Write the steps to obtain the Total, Average, Highest and Lowest for the month of January and for the month of February in columns B and C respectively.</p>				A	B	C	1	Item Name	January	February	2	Mouse	6000	7300	3	Monitor	50000	45000	4	Keyboard	6100	6300	5	Printer	65000	80000	6	Pen Drive	3250	3100	7	Total			8	Average			9	Highest			10	Lowest		
	A	B	C																																												
1	Item Name	January	February																																												
2	Mouse	6000	7300																																												
3	Monitor	50000	45000																																												
4	Keyboard	6100	6300																																												
5	Printer	65000	80000																																												
6	Pen Drive	3250	3100																																												
7	Total																																														
8	Average																																														
9	Highest																																														
10	Lowest																																														

9	Answer the following using Spreadsheet:									
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>
	<b>1</b>	<b>Name</b>	<b>ENG</b>	<b>HINDI</b>	<b>ECO</b>	<b>BK</b>	<b>A/C</b>	<b>Tax</b>	<b>TOTAL</b>	<b>AVERAGE</b>
	<b>2</b>	Abdul	76	63	78	66	86	68		
	<b>3</b>	Abbas	54	49	48	52	46	59		
	<b>4</b>	Ramesh	72	69	66	78	75	81		
	<b>5</b>	Sana	87	73	84	82	91	93		
	<b>6</b>	Siraj	54	49	28	31	17	21		
For the above spreadsheet write the steps to obtain the Total marks in 6 subjects and the Average, as the average of the best five subjects for each student.										

10	In the following worksheet the cost of machinery is entered in cell A4 and its estimated life in years is entered in cell A7 and it has no salvage value.				
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>1</b>		<b>Year</b>	<b>Depreciation</b>	<b>WDV</b>
	<b>2</b>		<b>1</b>		
	<b>3</b>		<b>2</b>		
	<b>4</b>	500000	<b>3</b>		
	<b>5</b>		<b>4</b>		
	<b>6</b>		<b>5</b>		
	<b>7</b>	<b>5</b>			
	<b>8</b>				
Write the steps to obtain year wise depreciation and WDV in columns C and D where depreciation is computed using reducing balance method.					

11 Consider the following worksheet

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>1</b>	<b>Name</b>	<b>Age</b>	<b>Department</b>	<b>Bonus</b>
<b>2</b>	Farooque	26	ACCOUNTS	2400
<b>3</b>	Sabir	28	HR	3000
<b>4</b>	Saima	30	SALES	4000
<b>5</b>	Anas	26	HR	2800
<b>6</b>	Jeetu	35	SALES	4500
<b>7</b>	Ankita	40	HR	5000
<b>8</b>	Sahil	33	PURCHASE	3700
<b>9</b>	Arif	32	ACCOUNTS	3500
<b>10</b>	Qadir	35	ACCOUNTS	3900
<b>11</b>	Salman	36	PURCHASE	4000

Write the steps to obtain the following:

1. Sort the data in the ascending order of Department.
2. Obtain subtotals of Bonus for each department.

12 Consider the following worksheet

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>1</b>	<b>Name</b>	<b>Join Date</b>	<b>Department</b>	<b>Salary</b>
<b>2</b>	Farooque	1/1/1990	ACCOUNTS	24000
<b>3</b>	Sabir	1/1/1991	HR	30000
<b>4</b>	Saima	1/1/1990	SALES	40000
<b>5</b>	Anas	1/1/1990	HR	28000
<b>6</b>	Jeetu	1/1/1991	SALES	45000
<b>7</b>	Ankita	1/1/1988	HR	50000
<b>8</b>	Sahil	1/1/1989	PURCHASE	37000
<b>9</b>	Arif	1/1/1989	ACCOUNTS	35000
<b>10</b>	Qadir	1/1/1988	ACCOUNTS	39000
<b>11</b>	Salman	1/1/1988	PURCHASE	40000

Prepare a Pivot table report containing Join Date in the row area and Minimum Salary and Sum of Salary in the data area.