

## BDTM: Big Data Tools for Managers

### 2<sup>nd</sup> Internal Question Paper [Set-B]

Note:

- Import MySQL database from the given link or same dataset has been sent via email along with question paper, new bdtm\_test\_2 database will be created on successful import.  
[https://drive.google.com/file/d/1G5xZcBQC4\\_ZBNpfXiq5DI9O1Fe2OYu2o/view?usp=sharing](https://drive.google.com/file/d/1G5xZcBQC4_ZBNpfXiq5DI9O1Fe2OYu2o/view?usp=sharing)
- bdtm\_test\_2 database can be used for Q1, Q2 and Q3 in question paper.
- Screenshot is must for Q1, Q2, Q3 in answer sheet.
- Screenshots are optional, Q4 & Q5 can have answers as screenshots or R code.
- Download Vehicle Park data from the given link or same dataset has been sent via email along with question paper, this dataset can be used for Q5 in question paper.  
<https://drive.google.com/file/d/1FxiNFxpNp0GEX6ZnUC7DAenQZHogeRf2/view?usp=sharing>
- Write proper USN, NAME and Class sections in answer sheet.
- Use this google form link to submit the answer sheet at the end of exam  
Submission Link: <https://forms.gle/BJdpVd1NQpSd7KpH7>

**Q1.** Demonstrate UPDATE & DELETE statements in MySQL.

[10]

Table: **EMPLOYEE**

ID	NAME	CITY	STATE	COUNTRY
1	AAA	PUNE	MAH	INDIA
2	BBB	MUMBAI		
3	CCC	TUMKUR	KAR	
4	DDD	BANGALORE		
5	EEE	GANDHINAGAR		

- A. Update STATE as KAR for city BANGALORE
- B. Update value INDIA for Country for all the records, after updating Country should contains 'INDIA' values for entire table.
- C. DELETE the records where NAME is AAA
- D. DELETE the records where STATE is KAR
- E. Display all available records in EMPLOYEE table

**Q2.** Demonstrate JOINS in MySQL for the given Table.

[10]

Table: **Orders**

OrderID	CustomerID	OrderDate
10308	2	2022-08-15
10309	1	2022-08-26
10310	2	2022-09-01

Table: **Customers**

CustomerID	CustomerName	Country
1	John Todd	Germany
2	Dominic Dom	Mexico
3	Paul S	Mexico

- A. Perform Inner Join with Orders & Customer Table
- B. Create a MySQL View for right join with Orders & Customer Table
- C. Use a View which created in Q2[B] to display data for right join queries
- D. Delete a MySQL View which created in Q2[B]

**Q3.** Perform SET operations on given MySQL Tables

[10]

Tables: **CUSTOMERS\_1**, **CUSTOMERS\_2**

- A. Display all the records and exclude duplicate records from CUSTOMER\_1 and CUSTOMER\_2 using MySQL SET operators.
- B. Display common records from CUSTOMER\_1 and CUSTOMER\_2 tables.

**Q4. [A]** Perform basic operations on R Vector

[5]

1. Create R vector for given elements (U, O, I, E, A)
2. Display the vector elements
3. Display the length of R vector
4. Sort vector elements in ascending order

**Q4. [B]** Create and Display R Matrix for below given elements

[5]

$$\begin{bmatrix} 8 & 4 & 3 \\ -5 & 6 & -2 \\ 7 & 9 & -8 \end{bmatrix}$$

1. Create Matrix with given elements
2. Display Matrix elements in R

**Q5.** Read Vehicle Park dataset and write R code for following statements.

[10]

About Dataset:

- Vehicle Park data contains the no of vehicles are present on road or market in India from Year 2000 to 2022
- **Columns:**
  - YEAR: Vehicle Sales Year
  - VEHICLE\_TYPE: Type of vehicle sold to the market (Truck, Bus, Four & Two-wheeler, Others)
  - BRAND: Vehicle brand & Manufacturer
  - VEHICLE\_COUNT: No of vehicle sold in market for a year
  - AGE\_GROUP: Age group of the vehicle
  - AGE: Vehicle age represent how old vehicle
  - RTO\_REGISTRATION\_YEAR: Year of vehicle registration

Write R Code for following statements:

- A. Read (VEHICLE\_PARK.csv) CSV file
- B. Display top 20 and bottom 55 records using head and tail command
- C. Display quick summary of all the columns.
- D. Display all the vehicles whose AGE is 5 years old
- E. Display BRAND single columns from Vehicle Park data.