**PSG COLLEGE OF TECHNOLOGY-COIMBATORE**

**DEPARTMENT OF APPLIED MATHEMATICS AND COMPUTATIONAL SCIENCES**

**III Sem MSc Software Systems - 18XW38 - RDBMS LAB**

**Problem Sheet – V**

1. Consider the following database storing information about articles, suppliers, and deliveries where the underlined attributes represent the primary keys:

***Supplier*(SNr, SName, DateofBusiness, City)   
*Article*(ANr, AName, Colour, Weight, City)   
*Delivery*(SNr, ANr, Quant)**

With the appropriate constraints write SQL statements to create the relevant tables. Choose suitable data types for the attributes.

***Supplier***   
 SNr - supplier number starting with character S followed by a three digit number

SName - supplier name which should be distinct

DateofBusiness – starting date of business  
 City - the city where supplier is located. Starting letters should be capitalized.

***Article***  ANr - article number starting with character A followed by a two digit number

AName – distinct article names  
 Color - article color (values allowed are W/B/R only)

Weight - article weight in gms.

City - the city where article is located.

***Delivery***  Qty - delivery quantity

SNr and ANr are foreign keys of the corresponding attributes in *supplier & article*.

1. Insert the following details into the tables subjected to the constraints given above.

***Supplier***

**SNr SName DateofBusiness City**

S001 KENSTAR 01/01/2002 Chennai

S002 SAMSUNG 12/10/2001 Cbe

S003 ELGI 20/02/1999 Cbe

S004 PHILIPS 10/12/1999 Delhi

***Article***

**ANr AName Color Weight City**

A01 MOBILE BLACK 100 Cbe

A02 MICROWAVE WHITE 1500 Bombay

A03 AIR COOLER WHITE 2000 Cbe

A04 REFRIGIRATOR RED 10000 Delhi

***Delivery***

**SNr ANr Qty** S003 A01 1000

S002 A02 200

S003 A02 500

S004 A03 10

S002 A04 50

S003 A03 25

S001 A02 55

S001 A03 200

S001 A04 78

S001 A101 67

1. Write SQL queries to get the following information from the database.

1. Display all pairs of article numbers with supplier numbers where one supplier delivers two articles.
2. Display the article numbers and quantity of articles delivered whose cities are first in an alphabetic list of such cities.
3. List the supplier numbers of those suppliers who deliver the same articles as the supplier who delivers at least one red article.
4. Display the article numbers for articles delivered by a supplier in CBE to article in CBE.
5. Change the color of all red articles to orange if the supplier belongs to CBE.
6. Insert the detail A05 WASHING MACHINE GREEN 20000 Cbe into the Article table by properly changing the needed constraints.
7. Find the date of business of the supplier who supplied BLACK article.
8. Find the name of the supplier who supplied maximum number of articles.
9. Find the name of the supplier who supplied maximum quantity of articles.
10. Find the name of the supplier who stands second in supplying maximum quantity of articles.
11. Display the details of delivery of the suppliers from the same city.
12. Display only the details of delivery of the suppliers from different cities.
13. Find the date of business of the supplier who supplied a total of 250 units.
14. Find the articles supplied by supplier ELGI.
15. Find the article with maximum quantity supplied.
16. Display the cities of the suppliers who supply MICROWAVE.
17. Display the details of the cities of the suppliers who supply MICROWAVE with more than one supplier.
18. Display the weight of the same colored articles supplied by the same supplier.
19. Display the delivery details along with all the details in the order of supplier id.
20. Find and display the details of the articles supplied in the sorted order of supplier number.
21. Display the articles supplied by the last supplier in the alphabetical order of supplier list.
22. Display the supplier names who supply part “MICROWAVE”.
23. Display the supplier names who do not supply part “MOBILE”.
24. Display the supplier names who supply all articles.
25. Display the supplier numbers who supply at least one of the articles supplied by supplier ‘S002’.
26. Display all pairs of supplier numbers such that two suppliers are “colocated” (located in the same city).
27. Display the article numbers that are not supplied by any supplier in Delhi.
28. List the supplier numbers of suppliers whose city is first in the lexicographic order of cities.
29. Find the article numbers supplied by every supplier with weight more than 2000.
30. Find the article names supplied by S001 and no one else.