## SARDAR PATEL UNIVERSITY <br> BBA (ISM) (3 Years) Semester - 4 <br> Syllabus with Effect from: 2019-20 <br> UM04CBBS23 DATABASE MANGEMENT SYSETEM <br> Credit: 03

Marks: 100

| Unit 1 | Database Management System <br> -Basic concepts <br> -Data, Information, Field, Record, Database File, <br> - Advantages and Disadvantages of DBMS. <br> -Organization of DBMS. <br> -Components of DBMS. <br> -Structure of DBMS. | 25\% |
| :---: | :---: | :---: |
| Unit 2 | Data Models \& Relational Database <br> -Data Model <br> -E-R Modeling <br> -Entity, Attribute, Relationship \& Types, Mapping cardinality, <br> -Membership class of the entity type, Rules of Drawing ER Model <br> -Relational Data Model : Concept, Example, Advantages, Disadvantages <br> -Normalization : 1NF,2NF,3NF <br> -Difference between Conventional DBMS and RDBMS <br> -Codd Rules | 25\% |
| Unit 3 | SQL <br> -Introduction to SQL <br> -Data Types <br> Built in <br> -Char, Varchar, Varchar2, number, date, raw, long, lob, etc. <br> -CREATE TABLE (without constraints) <br> -INSERT, UPDATE, DELETE <br> -SELECT (simple, with form \& where clause) <br> -DROP table <br> -SELECT * from Tab -DESC <br> -ALTER TABLE(add/modify columns) <br> - SPOOL <br> -NULL values <br> -Primary Key, Foreign Key <br> -Unique Constraint <br> -Check Constraint <br> -Use of USER_CONSTRAINTS <br> -Constraints in CREATE TABLE <br> -ALTER TABLE to add/remove constraints | 25\% |
| Unit 4 | SQL Functions and Pattern Matching 25\% <br> - Range Searching and Pattern Matching <br> $\rightarrow$ Arithmetic Operators <br> $\rightarrow$ Relational operators <br> $\rightarrow$ Logical Operators <br> $\rightarrow$ IN, LIKE, BETWEEN <br> - Group functions | 25\% |


|  | $\rightarrow$ AVG, MIN, MAX, COUNT, SUM |  |
| :--- | :--- | :--- |
|  | - | Numeric Functions |
|  | $\rightarrow$ ABS, POWER, ROUND, TRUNC, SQRT |  |
|  | $\rightarrow$ Character Functions |  |
|  | UPPER, LOWER, INITCAP, LENGTH, SUBSTR, LPAD, |  |
|  | - DPAD, LTRIM, RTRIM. |  |
|  | $\rightarrow$ ADD_MONctions |  |
|  | $\rightarrow$ Addition and Subtraction of dates |  |
|  | Conversion Functions |  |
|  | TO_NUMBER, TO_CHAR, TO_DATE |  |
|  | Number and date format models |  |

## References:

1.Oracle Developer 2000 by Ivan Bayross, BPB Publishers.

PRACTICAL BASED ON DATABASE MANGEMENT SYSETEM

| 1 | Create appropriate tables and insert the data. |
| :---: | :---: |
| 2 | Find the names of all the clients. |
| 3 | Retrieve the entire contents of the client _master table. |
| 4 | Retrieve the list of names and the cities of all the clients. |
| 5 | List the various products available from the product master table. |
| 6 | List the clients who are located in Bombay. |
| 7 | Find the names of the salesman who have a salary equal to Rs. 3000. |
| 8 | Change the city of client_no 'C00005' to 'Bombay'. |
| 9 | Selected all salesman from the salesman_master shoes salaries are equal to Rs. 3000. |
| 10 | Ad a column called 'telephone' of data type 'number and size $=$ ' 10 ' to the client amster table. |
| 11 | Change the size of sell_price column in product-master to 10,2. |
| 12 | Destroy the table client_master along with its data. |
| 13 | Find the names of all clients having 'a' as the second letter in their names. |
| 14 | Find out the clients who stay in a city whose second letter is 'a'. |
| 15 | Find out the list of all clients who stay in 'Bombay' or 'Delhi'. |
| 16 | Print the list of clients whose bal-due is greater than value 10000. |
| 17 | Print the information from sales_order table for orders placed in the month of January. |
| 18 | Display the order information for client_no 'C0001' and 'C0002'. |
| 19 | Find products whose selling price is greater than 2000 and less than or equal to 5000. |
| 20 | List the names, city and state of clients who are not in the state at 'Maharastra'. |
| 21 | Count the total number of orders. |
| 22 | Calculate the average price of all the products. |
| 23 | Count the number of products having price greater than or equal to 1500. |
| 24 | Find the products whose qty_on_hand is les than reorder level. |
| 25 | Find out the sum total of all the billed orders for the month of 'November'. |
| 26. | Display the s_order_date in the format 'dd-month-yy' e.g. 12-February-98. |
| 27. | Find the number of days elapsed between today's date and the delivery date of the orders placed by the clients. |

## Evaluation Scheme

Internal $($ Theory + Practical $)=40$ Marks
External $($ Theory + Practical $)=60$ Marks

