

**FACULTY OF COMPUTER APPLICATIONS**
**Bachelor of Science (Information Technology)**  
**B.Sc. (IT)**

- **Sem.** :1
- **Subject Code** :05BS0104
- **Subject** : Database Management System – 1
  
- **Course Objectives** :
  1. To understand and to get familiarize with basic concepts of DBMS.
  2. To conceptualize the database using E-R Model and to understand the process of normalization.
  3. To create database design using relational model and to carry out relational algebraic operations.
  4. To execute and analyze basic SQL queries.
  5. To create and manage different SQL objects.
  
- **Prerequisites:**Basics and elementary knowledge of working with the computer.

<b>Unit No</b>	<b>Topics Covered</b>	<b>No of lectures required</b>
<b>1</b>	<b>Introduction to DBMS:</b> Fundamentals of Database Management System, DBMS Characteristics, Advantages of DBMS, Applications of DBMS, Schema and Instance, Data Independence, Database Models, ANSI-SPARC Architecture.	<b>10</b>
<b>2</b>	<b>Entity Relationship Model&amp; Normalization:</b> Introduction to E-R Model, E-R Diagram Components, Entity, Attribute and Relationships, Mapping	<b>10</b>

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	<p>Cardinality, Binary and Ternary relationship, Symbols of E-R Diagram, The concept of weak entity set.</p> <p>Concept of Functional Dependencies, different types of functional dependencies, decomposition process with example, Normalization – First Normal Form (1NF), Second Normal Form (2NF) and Third Normal Form (3NF).</p>	
<b>3</b>	<p><b>Relational Model:</b></p> <p>Relational Model concepts, Relational Model constraints and Relational Database Schemas</p> <p>Relational Algebra, Relational Algebra Operations: Selection, Projection, Join, Union, Intersect and Difference, Relational Algebra Examples.</p>	<b>10</b>
<b>4</b>	<p><b>Basic SQL:</b></p> <p>Introduction to SQL, Data Types, Categories of SQL Commands, Creating a table, Altering the structure of table, Removing the table, Rename the table, Insert, Update, Delete operation, Assigning and revoking object privileges using Grant and Revoke Command, Primary Key, Foreign Key, Unique, Not Null, Check Constraint, Oracle SQL operators.</p>	<b>10</b>
<b>5</b>	<p><b>Advanced SQL:</b></p> <p>Range Searching, Pattern Matching, Order By Clause, Group By and Having Clause, Set Operators, Sub Queries, Joins, Dual Table, Oracle Aggregate and built-in Functions, Views, Index, Sequence, Synonyms.</p>	<b>10</b>

**Course Outcomes:**

1. Student will be able to understand the basic concepts, applications and features of DBMS.
2. Student will be able to create conceptual representation of database and will be able to carry out database normalization process.

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3. Students will be able to perform various relational algebra operations on database.
4. Student will be able to execute different SQL commands and Queries.
5. Student will be able to implement advanced queries and built in functions.

Course Outcomes – Program Outcomes Mapping Table :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			L			L			H	
CO2		L		M			H			M
CO3	H				L			H		
CO4			M				L		L	
CO5	L				M			M		H

**Text Book :**

1. "Fundamentals of Database Systems", RamezElmsari, Shamkant B Navathe, Pearson Education, 4th Edition.
2. "SQL, PL/SQL the programming Language of Oracle", Ivan Byross, BPB Publication, 4th Edition.

**Reference Books :**

1. "An Introduction to Database Systems", C J Date, A Kannan, S Swaminathan, Pearson Education, 8<sup>th</sup> Edition.
2. "Database Systems : Design, Implementation and Management", Peter Rob, Carlos Coronel, 7th Edition, Cengage Learning (2007)
3. "Database System Concepts, Design &Applications", S. K. Singh, Pearson Education.
4. "Oracle Database 11g: The Complete Reference", Kevin Loney, Oracle Press.

**Web References:**

1. <https://www.oracletutorial.com/>
2. <https://www.guru99.com/sql.html>



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3. [https://www.oracle.com/webfolder/technetwork/tutorials/obe/db/12c/r1/odb\\_quickstart/odb\\_quick\\_start.html](https://www.oracle.com/webfolder/technetwork/tutorials/obe/db/12c/r1/odb_quickstart/odb_quick_start.html)
4. <https://www.techonthenet.com/oracle/index.php>
5. <https://www.w3resource.com/oracle/index.php>

#### App References:

1. <https://livesql.oracle.com/apex/>
2. <https://apex.oracle.com/en/>
3. [https://play.google.com/store/apps/details?id=in.ajaykhatri.learndbms&hl=en\\_IN](https://play.google.com/store/apps/details?id=in.ajaykhatri.learndbms&hl=en_IN)
4. [https://play.google.com/store/apps/details?id=com.msh.plsqllearning&hl=en\\_IN&gl=US](https://play.google.com/store/apps/details?id=com.msh.plsqllearning&hl=en_IN&gl=US)
5. <https://www.oracle.com/database/technologies/appdev/plsql.html>

#### Syllabus Coverage from text /reference book & web/app reference:

Unit #	Chapter Numbers
1	Book - 1: Chapter 1: (1.1 to 1.6), Chapter 2: (2.1 to 2.2)
2	Book - 1: Chapter 3, Chapter 10: (10.2 to 10.5)
3	Book - 1: Chapter 5: (5.1 to 5.2), Chapter 6: (6.1 to 6.3)
4	Book - 2: Chapter 7, 8
5	Book - 2: Chapter 9, 10, 11

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**PRACTICALS**

# **Tool:** Oracle 10g or above

Sr. No	Unit : 1																																																																																																																								
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NEHRU PLACE	DELHI	KRANTI	BOMBAY
POWAI	BOMBAY	NAREN	BOMBAY

**(8) BORROW**

LOANNO	CNAME	BNAME	AMOUNT
201	ANIL	VRCE	1000.00
206	MEHUL	AJNI	5000.00
311	SUNIL	DHARAMPETH	3000.00
321	MADHURI	ANDHERI	2000.00
375	PRMOD	VIRAR	8000.00
481	KRANTI	NEHRU PLACE	3000.00
201	ANIL	VRCE	1000.00
206	MEHUL	AJNI	5000.00
311	SUNIL	DHARAMPETH	3000.00
321	MADHURI	ANDHERI	2000.00

**- Perform the following queries on the above tables:**

- Describe deposit, branch from deposit table.
- Describe borrow, customers tables.
- List all data from table DEPOSIT.
- List all data from table BORROW.
- List all data from table CUSTOMERS.
- List all data from table BRANCH.
- Give account no and amount of depositors.
- Give name of depositors having amount greater than Rs. 4000.
- Give name of customers who opened account after date '01-DEC-96'.
- List all the customers from Bombay city.

**2**

Id	Name	Type	Price	Quality	Item_pack_date
I1	Dairymilk	Chocolate	500	Good	12-aug-2000
I2	Kajukatri	Mithai	1000	Verygood	15-jan-2016
I3	Pizza	Fastfood	350	Average	20-Feb-2015
I4	Orangejuice	Juice	50	Best	05-feb-2016
I5	Vanilla_cack	Bakery Item	2000	Good	01-jan-2016

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1. Create above Table name as item\_master.
2. Insert Data shown in table.
3. Select information about price,quality and item\_pack\_date of the item.
4. Display information about item.
5. Sort the item by its quality.
6. Display quality from table with distinct values.
7. Change the quality of item from Good to Verygood.
8. Display item having quality Verygood.
9. Add new columns item\_pur\_date into table.
10. Display all information of items having price more than Rs. 500.
11. Delete the item having price of Rs. 50.
12. Rename table from person to Item\_detail.

<b>3</b>	<b>Cust_no</b>	<b>Cust_name</b>	<b>Address1</b>	<b>Address2</b>	<b>City</b>	<b>State</b>	<b>Ph_no</b>
	C1	Priya	RingRoad	Puja Park	Ahmedabad	Gujarat	8989878548
	C2	Puja	Lajpat Nager	Shyamal colony	Banaras	UP	7898456213
	C3	Ankit	Borivali	Panchayat nager	Mumbai	Maharashtra	7885984251
	C4	Ravi	VajdiRoad	Nandbhoomi colony	Delhi	Delhi	7898452034
	C5	Alpa	Jamanager Road	Railway colony	Ahmedabad	Gujarat	7465241589

1. Create above Table name as Cust\_master.
2. Insert Data shown in table.
3. Select information about all customers.
4. Display the list of customers belonging to "Gujarat" state.
5. Sort the customer by their customer name.
6. Display city from table with distinct values.
7. Change the address1 of priya from "Ring Road" to "CG Road".
8. Display city of customer whose state is Gujarat.
9. Add new column pin\_code into cust\_master table.
10. Drop column pin\_code from table.
11. Delete the customer having ph\_no value '7898452034'.
12. Rename table from cust\_master to customer\_detail.

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<b>4</b>	<table border="1"> <thead> <tr> <th>Person_Id</th> <th>Fname</th> <th>Lname</th> <th>City</th> <th>Salary</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sneha</td> <td>Sheth</td> <td>Rajkot</td> <td>10000</td> </tr> <tr> <td>2</td> <td>Puja</td> <td>Parmar</td> <td>Ahmedabad</td> <td>2000</td> </tr> <tr> <td>3</td> <td>Riya</td> <td>Gajar</td> <td>Pune</td> <td>8000</td> </tr> <tr> <td>4</td> <td>Sandip</td> <td>Jadeja</td> <td>Pune</td> <td>5000</td> </tr> <tr> <td>5</td> <td>Alpesh</td> <td>Prajapati</td> <td>Mumbai</td> <td>20000</td> </tr> </tbody> </table>					Person_Id	Fname	Lname	City	Salary	1	Sneha	Sheth	Rajkot	10000	2	Puja	Parmar	Ahmedabad	2000	3	Riya	Gajar	Pune	8000	4	Sandip	Jadeja	Pune	5000	5	Alpesh	Prajapati	Mumbai	20000								
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	<ol style="list-style-type: none"> <li>1. Create above Table name as Person.</li> <li>2. Insert data shown in table.</li> <li>3. Select information about Person_Id, Fname of the person.</li> <li>4. Display the list of person.</li> <li>5. Sort the person by salary.</li> <li>6. Display city from table with distinct values.</li> <li>7. Change the city of sandip from pune to kolkata.</li> <li>8. Display person whose Lname is "Prajapati".</li> <li>9. Add new columns state, Birthdate and pincode into table.</li> <li>10. Display all information of person having salary more than 6000.</li> <li>11. Delete the person having salary less than 3000.</li> <li>12. Rename table from person to person_master.</li> </ol>																																										
	<b>5</b>	<table border="1"> <thead> <tr> <th>Branch_id</th> <th>Branch_name</th> <th>Branch_Address</th> <th>Branch_City</th> <th>Branch_State</th> <th>Branch_Open_Date</th> </tr> </thead> <tbody> <tr> <td>B001</td> <td>BOI</td> <td>JagnathRoad</td> <td>Rajkot</td> <td>Gujarat</td> <td>22-mar-2015</td> </tr> <tr> <td>B002</td> <td>SBI</td> <td>Boriwali Road</td> <td>Mumbai</td> <td>Maharashtra</td> <td>12-jan-2000</td> </tr> <tr> <td>B003</td> <td>HDFC</td> <td>AgraRoad</td> <td>Agra</td> <td>U.P</td> <td>04-feb-1998</td> </tr> <tr> <td>B004</td> <td>DenaBank</td> <td>CGRoad</td> <td>Ahmedabad</td> <td>Gujarat</td> <td>20-sep-2012</td> </tr> <tr> <td>B005</td> <td>ICICI</td> <td>MajavdiRoad</td> <td>Junagadh</td> <td>Gujarat</td> <td>07-may-2011</td> </tr> </tbody> </table>						Branch_id	Branch_name	Branch_Address	Branch_City	Branch_State	Branch_Open_Date	B001	BOI	JagnathRoad	Rajkot	Gujarat	22-mar-2015	B002	SBI	Boriwali Road	Mumbai	Maharashtra	12-jan-2000	B003	HDFC	AgraRoad	Agra	U.P	04-feb-1998	B004	DenaBank	CGRoad	Ahmedabad	Gujarat	20-sep-2012	B005	ICICI	MajavdiRoad	Junagadh	Gujarat	07-may-2011
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<ol style="list-style-type: none"> <li>1. Create above table with name Bank_Branch.</li> <li>2. Insert given information into a table.</li> <li>3. Display all information of Bank_Branch.</li> <li>4. Display Branch_id of branch.</li> <li>5. Display Branch_name of Branch table.</li> <li>6. Display Branch_address of branch.</li> <li>7. Display Branch_city of branch.</li> <li>8. Display Branch_state of branch.</li> <li>9. Display Branch_open_date of branch.</li> <li>10. Display Branch_name and Branch_open_date of branch.</li> </ol>																																											

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11. Display Branch\_id and Branch\_address from Branch.
12. Display Branch\_name, Branch\_address and Branch\_city from branch table.
13. Display Branch\_city, Branch\_state and Branch\_open\_date from Branch.
14. Sort table by Branch\_id.
15. Sort table by Branch\_name.
16. Sort table by Branch\_city.
17. Sort table by Branch\_state.
18. Change the size of Branch\_state column.
19. Change the branch\_name='Union' where id=B003.
20. Change the state='Delhi' of BOI branch.
21. Change the branch\_open\_date=04-nov-2015 of Union branch.
22. Add column Pincode in branch.
23. Insert pincode=360006 of Dena Bank.
24. Insert pincode=360005 of state Delhi.
25. Delete information of ICICI.
26. Delete information of Branch having branch\_open\_date=07-may-2011.
27. Rename table Bank\_Branch to Branch\_master.
28. Display structure of Branch\_master.
29. Create Branch\_info from Branch\_master.
30. Create Branch\_detail from Branchg\_info.

**Unit : 2**
**6 - Create following tables with proper normalization process :**

(1) JOB

Column Name	Datatype(Size)
job_id	Varchar2(15)
job_title	Varchar2(30)
min_sal	Number(7,2)
max_sal	Number(7,2)

(2) EMPLOYEE

Column Name	Datatype(Size)
emp_no	Number(3)
emp_name	Varchar2(30)
emp_sal	Number(8,2)
emp_comm	Number(6,1)
dept_no	Number(3)

(3) DEPOSIT

Column Name	Datatype(Size)
a_no	Varchar2(5)
cname	Varchar2(15)
bname	Varchar2(10)
amount	Number(7,2)
a_date	Date

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**- Insert the following data inside the tables:**

(1) JOB

job_id	job_name	min_sal	max_sal
IT_PROG	Programmer	4000	10000
MK_MGR	Marketing manager	9000	15000
FI_MGR	Finance manager	8200	12000
FI_ACC	Account	4200	9000
LEC	Lecturer	6000	17000
COMP_OP	Computer Operator	1500	3000

(2) EMPLOYEE

emp_no	emp_name	emp_sal	emp_comm	dept_no
101	Smith	800		20
102	Snehal	1600	300	25
103	Adama	1100	0	20
104	Aman	3000		15
105	Anita	5000	5,000	10
106	Sneha	2450	2,450	10
107	Anamika	2975		30

(3) DEPOSIT

A_no	cname	Bname	Amount	date
101	Anil	andheri	7000	01-jan-06
102	sunil	virar	5000	15-jul-06
103	jay	villeparle	6500	12-mar-06
104	vijay	andheri	8000	17-sep-06
105	keyur	dadar	7500	19-nov-06
106	mayur	borivali	5500	21-dec-06

**- Perform the following queries on the above tables:**

- Retrieve all data from employee, jobs and deposit.
- Give details of account no. and deposited rupees of customers having account opened between dates 01-01-06 and 25-07-06.
- Display all jobs with minimum salary is greater than 4000.
- Display name and salary of employee whose department no is 20. Give alias name to name of employee.
- Display employee number,name and department details of those employee whose department lies in(10,20).
- Display all employee whose name start with 'A'.
- Display all employee whose third character is 'a'.
- Display all employee whose name start with 'A' and third character is 'a'.

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	<p>9. Display name, number and salary of those employees whose name is 5 characters long and first three characters are 'Ani'.</p> <p>10. Sort and display the names of customers from deposit table.</p>
<p><b>7</b></p>	<p><b>- Perform the following queries on the tables created in practical exercise 1 and 6:</b></p> <ol style="list-style-type: none"> <li>1. List total deposit from deposit.</li> <li>2. List total loan from karolbagh branch.</li> <li>3. Give maximum loan from branch vrce.</li> <li>4. Count total number of customers .</li> <li>5. Count total number of customer's cities.</li> <li>6. Create table supplier from employee with all the columns.</li> <li>7. Create table sup1 from employee with first two columns.</li> <li>8. Create table sup2 from employee with no data.</li> <li>9. Insert the data into sup2 from employee whose second character should be 'n' and string should be 5 characters long in employee name field.</li> <li>10. Delete all the rows from sup1.</li> <li>11. Delete the detail of supplier whose sup_no is 103.</li> <li>12. Rename the table sup2 to supplier_two.</li> <li>13. Destroy table sup1 with all the data.</li> <li>14. Update the value dept_no to 10 where second character of emp. name is 'm'.</li> <li>15. Update the value of employee name whose employee number is 103.</li> </ol>
<p><b>8</b></p>	<p><b>- Perform the following queries on the tables created in practical exercise 1 and 6:</b></p> <ol style="list-style-type: none"> <li>1. List total deposit of customer having account date after 1-jan-96.</li> <li>2. List total deposit of customers living in city Nagpur.</li> <li>3. List maximum deposit of customers living in Bombay.</li> <li>4. Display the highest, lowest, sum, and average salary of all employees. Label the columns Maximum, Minimum, Sum, and Average, respectively. Round your results to the nearest whole number.</li> <li>5. Write a query that displays the difference between the highest and lowest salaries. Label the column DIFFERENCE.</li> <li>6. Create a query that will display the total number of employees and, of that total, the number of employees hired in 1995, 1996, 1997, and 1998</li> <li>7. Find the average salaries for each department without displaying the repetitive department numbers.</li> <li>8. Write a query to display the total salary being paid to each job title, within each department.</li> <li>9. Find the average salaries &gt; 2000 for each department without displaying the repetitive department numbers.</li> <li>10. Display the job and total salary for each job with a total salary amount exceeding 3000.</li> </ol>

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**Unit : 3**

- 9** - Perform the following queries on the tables created in practical exercise 1 and 6:
1. Give name of customers who are depositors having same branch city of mr.sunil.
  2. Give deposit details and loan details of customer in same city where pramod is living.
  3. Create a query to display the employee numbers and last names of all employees who earn more than the average salary. Sort the results in ascending order of salary.
  4. Display the last name and salary of every employee who reports to ford.
  5. Display the department number, name, and job for every employee in the Accounting department.
  6. Give name of customer who are borrowers and depositors and having living city nagpur
  7. Give city as their city name of customers having same living branch.
  8. Write a query to display the last name, department number, and department name for all employees.
  9. Create a unique listing of all jobs that are in department 30. Include the location of the department in the output
  10. Write a query to display the employee name, department number, and department name for all employees who work in CALCUTTA.

- 10** 1. Create the following table named table as CUSTOMER with proper normalization.

COLUMN NAME	DATATYPES	SIZE	DESCRIPTON
CUST_NO	NUMBER	4	PRIMARY KEY
FIRST_NAME	VARCHAR2	20	NOT NULL
LAST_NAME	VARCHAR2	20	-
ADDRESS	VARCHAR2	20	-
CITY	VARCHAR2	8	-
STATE	VARCHAR2	20	-
PIN	NUMBER	6	-
B_DATE	DATE	-	-
STATUS	CHAR	1	VALUES MUST BE IN ('V','I','A')- Check Constraint

2. Insert the following data into the CUSTOMER table:

1003	RAJ	BAHADUR	SHANTI VILLA	UDP	KARNATAKA	576101	1-AUG-70	V
1004	FELIX	SIMON	M-J-56	PJM	GOA	403002	12-FEB-71	A
1005	RAJAN	KUTTY	A1 TRADERS	KNR	KERALA	670001	09-JUN-71	A
1006	SHILPA	PAI	12/4B	MNG	KARNATAKA	574154	11-DEC-70	I
1007	BOSCO	RAKSHIT	R.K. PLAZA	BNG	KARNATAKA	576201	01-JAN-71	A

3. Display all the records from the table.
4. Display all the records from the table where state is KARNATAKA.

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	<ol style="list-style-type: none"> <li>5. Delete the row from the table where PIN CODE is 576201.</li> <li>6. Set the PIN CODE equal 476001 where CUST_NO=1004.</li> <li>7. Change the ADDRESS as "KAVI MUDDANNA MARG" AND PIN=576104 where CUST_NO=1003.</li> <li>8. Delete the records of GOA state from the table and then retrieve all the records back.</li> <li>9. List all the records for INVALID ('I') persons.</li> <li>10. Select all the records with single occurrence (without duplication) of state from the table.</li> <li>11. Sort and display the customer data, in the alphabetic order of state.</li> <li>12. Sort and display the state field in the in descending order.</li> <li>13. Select the records of KARNATAKA customers who are valid ('V').</li> <li>14. Retrieve records of Karnataka / Kerala customers.</li> <li>15. Retrieve records of Karnataka / Kerala customers who are ACTIVE ('A').</li> <li>16. Retrieve records of Karnataka customers with pin code 576201.</li> <li>17. Display all the rows from the table except for customer number 1005.</li> <li>18. Retrieve rows where the state name begins with K and following by any other character.</li> <li>19. Retrieve rows where name contains the word RAJ embedded it.</li> <li>20. Display all the row who's CUST_NO is in the range from 1003 to 1005.</li> <li>21. Display all the rows whose dates are in the range of 10-JAN-71 and 31-DEC-71.</li> <li>22. Retrieve all the rows where city column equals to UDP or MNG or BNG or PGN.</li> <li>23. Rename customer table to CUST.</li> </ol>
	<b>Unit : 4</b>
<b>11</b>	<p>- Perform the following queries on the tables created in practical exercise 10:</p> <ol style="list-style-type: none"> <li>1. Create view named as CUST_VIEW from CUSTOMER table using CUST_NO, FIRST_NAME, LAST_NAME columns and list out the records from CUST_VIEW.</li> <li>2. Insert new record into CUST_VIEW.</li> <li>3. Update LAST_NAME to RAO where CUST_NO 1006;</li> <li>4. Delete the record from CUST_VIEW for CUST_NO 1005;</li> <li>5. Create read only view CUST_RVIEW from CUSTOMER table and list out the records from CUST_RVIEW.</li> </ol>
<b>12</b>	<p>- Perform the following queries on the tables created in practical exercise 6:</p> <ol style="list-style-type: none"> <li>1. Create simple index on emp_no column of EMPLOYEE table.</li> <li>2. Create composite index by taking emp_no, emp_name columns of EMPLOYEE table.</li> <li>3. Create UNIQUE index on emp_no column of EMPLOYEE table.</li> <li>4. Create composite index by taking emp_no, emp_name columns of EMPLOYEE table.</li> <li>5. Drop all the indexes.</li> </ol>
<b>13</b>	<p>- Perform the following queries on the tables created in practical exercise 6:</p> <ol style="list-style-type: none"> <li>1. Delete all the records from EMPLOYEE table</li> <li>2. Create sequence named as EMP_SEQ on EMPLOYEE table. Sequence starts with values</li> </ol>

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	<p>101, increment by 1, MinValue 1, MaxValue 1000.</p> <ol style="list-style-type: none"> <li>3. Show the current value of index using dual table.</li> <li>4. Show the next values of index using dual table.</li> <li>5. Insert the records in EMPLOYEE table and use EMP_SEQ sequence to automatically generate and store the value in emp_no column.</li> </ol>
	<b>Unit : 5</b>
<b>14</b>	<p>- Perform the following queries on the tables created in practical exercise 1 and 6:</p> <ol style="list-style-type: none"> <li>1. Create synonym DEPOSITOR for DEPOSIT table and list out the records.</li> <li>2. Create synonym BORROWER for BORROW table and list out the records.</li> <li>3. Create synonym FUNCTION for JOB table and list out the records.</li> </ol>
<b>15</b>	<p>- Perform the following queries on DUAL table:</p> <ol style="list-style-type: none"> <li>1. Write a query to add 15 days to the current date.</li> <li>2. Write a query to Add and subtract 5 months from the current month.</li> <li>3. Find out the ASCII equivalent of character 'M'.</li> <li>4. Find out the character equivalent of ASCII 67, 65 and 84.</li> <li>5. Write a query to find the last day of the month.</li> <li>6. Write a query to calculate the Date difference between current date and 20/05/2015.</li> <li>7. Write a query to Calculate the number of months between current date and 03/03/2016.</li> <li>8. Find out the second occurrence of 'or' from third position in the string 'corporate floor'.</li> <li>9. Convert the string 'marwadi university' so that first character of each word is in capital.</li> <li>10. Find out the user name and user id of currently logged on user.</li> </ol>