```
SQL> /*SAGAR KALAUNI*/
SQL> /*Lab1-kalauni*/
SQL> /*Q.No.-1*/
SQL> SELECT *
  2  FROM ROOM
  3  WHERE RoomNumber LIKE 'RA%';

ROOMNU DESCRIPTION
------ ------------------------------
RA0075 Radiology Ward
RA0076 Radiology Ward
RA0077 Radiology Ward
RA0078 Radiology Ward

SQL>
SQL> /*Q.No.-2*/
SQL> SELECT TreatmentNumber, DateTreated, EmployeeID
  2  FROM Treatment
  3  WHERE EmployeeID IN ('88202', '23244') AND TreatmentNumber < 3;

TREATMENTNUMBER DATETREAT EMPLO
--------------- --------- -----
              1 26-AUG-23 88202
              2 27-AUG-23 23244

SQL> /*THE END*/
SQL> SPOOL OFF
SQL> /*Sagar Kalauni*/
SQL> /* Lab2-*/
SQL> /*1.Create a table named prod_table.  This table should have two
columns named prod_id and prod_description.  These columns should be
defined to store the following type of data, respectively:  prod_id
stores numeric data that is a maximum of 3 characters in size;
prod_description stores variable character data that is a maximum of 25
characters in size.*/
SQL> CREATE TABLE prod_table (
  2      Prod_id             NUMBER (3),
  3   prod_description    VARCHAR2 (25)
  4  );

Table created.

SQL> /*Table has been created*/
SQL>
SQL> /*2.Insert two rows into the test_table*/
SQL> INSERT INTO prod_table VALUES (1, 'Wheel');

1 row created.

SQL> INSERT INTO prod_table VALUES (2, 'Nuts and Bolts');

1 row created.

SQL> /*Two records have been inserted into the 'prod_table'.*/
SQL>
SQL>
SQL> /*3.Use the DESCRIBE command to describe the prod_table. */
SQL> DESC prod_table;
 Name                                      Null?    Type
 ----------------------------------------- -------- ---------------------
-------
 PROD_ID                                            NUMBER(3)
 PROD_DESCRIPTION                                   VARCHAR2(25)

SQL> /*The resulting output is displaying the 'prod_table' along with its
columns and their respective data types.*/
SQL>
SQL> /*4.Use the following SELECT command to display the rows in the
prod_table. */
SQL> SELECT * FROM prod_table;

   PROD_ID PROD_DESCRIPTION
---------- -------------------------
         1 Wheel
         2 Nuts and Bolts

SQL> /*The output encompass all columns of the 'prod_table.'*/
SQL>
SQL> /*5.Use the DROP command to drop the prod_table. */
SQL> DROP TABLE prod_table;
```

```
Table dropped.

SQL> /*The table has been successfully dropped from our database.*/
SQL>
SQL> /*6.Create the deptBusiness table described below: */
SQL> CREATE TABLE DeptBusiness (
  2      DepartmentNumber               NUMBER (4)
  3       CONSTRAINT PK_DeptBusiness PRIMARY KEY,
  4      DepartmentName                 VARCHAR2 (25)
  5          CONSTRAINT NN_DepartmentNamee NOT NULL,       /* Creating
unique constraint name*/
  6      ManagerID                       CHAR (5)
  7  );

Table created.

SQL> /*A new table named 'DeptBusiness' has been successfully created in
our database.*/
SQL>
SQL> /*7.Add the data shown below to the deptBusiness table.  Do not
define any foreign keys.  Leave the ManagerID column values as NULL.  */
SQL> INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
  2  VALUES (1106, 'CMIS');

1 row created.

SQL>
SQL> INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
  2  VALUES (1105, 'Accounting');

1 row created.

SQL>
SQL> INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
  2  VALUES (1100, 'Production');

1 row created.

SQL>
SQL> INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
  2  VALUES (1102, 'Economic Finance');

1 row created.

SQL> /*All the provided values have been successfully added to the
'DeptBusiness' table.*/
SQL>
SQL> /*8.a. COMMIT your row insertions in the deptBusiness table. b. Try
to INSERT the data for department number 1106 again in the deptBusiness
table. Did Oracle accept it? */
SQL> COMMIT;

Commit complete.
```

```
SQL> /*Upon the completion of the commit operation, all changes have been
successfully stored and applied.*/
SQL>
SQL> INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
  2  VALUES (1106, 'CMIS');
INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
*
ERROR at line 1:
ORA-00001: unique constraint (USER3.PK_DEPTBUSINESS) violated


SQL> /*value is not accepted saying error: Unique constraint violated*/
SQL>
SQL> /*9.Use the following SELECT command to display the rows in the
deptBusiness table...*/
SQL> SELECT *
  2  FROM DeptBusiness;

DEPARTMENTNUMBER DEPARTMENTNAME            MANAG
---------------- ------------------------- -----
            1106 CMIS
            1105 Accounting
            1100 Production
            1102 Economic Finance

SQL> /*The output displays the 'DeptBusiness' table with all the provided
data entries effectively populated within it.*/
SQL>
SQL> /*10.Delete the row for department number 1 from the deptBusiness
table.    */
SQL> DELETE FROM DeptBusiness
  2      WHERE DepartmentNumber= 1106;

1 row deleted.

SQL> /*A single record has been removed from our 'DeptBusiness' table.*/
SQL>
SQL>
SQL> /*11.Repeat the SELECT statement in question #9 above to verify your
record has been deleted*/
SQL> SELECT *
  2  FROM DeptBusiness;

DEPARTMENTNUMBER DEPARTMENTNAME            MANAG
---------------- ------------------------- -----
            1105 Accounting
            1100 Production
            1102 Economic Finance

SQL> /*Output clearly shows that in the DeptBusiness table now we have no
longer the observation having department number 1106, which have been
deleted in the last SQL command*/
SQL>
SQL>
SQL> /*12.Assume that the deletion of your row was an error.  Execute the
ROLLBACK command (SQL> ROLLBACK;) to undelete your row.  Use the SELECT *
statement again to verify that your row has been restored to the table.
*/
SQL> ROLLBACK;

Rollback complete.

SQL> /*This SQL command effectively reverses the impact of our previous
SQL command, which involved deleting one row from the 'DeptBusiness'
table.*/
SQL>
SQL> SELECT *
  2  FROM DeptBusiness;

DEPARTMENTNUMBER DEPARTMENTNAME            MANAG
---------------- ------------------------- -----
            1106 CMIS
            1105 Accounting
            1100 Production
            1102 Economic Finance

SQL> /*Output is clearly showing that the deleted row has been
sucessfully retrived back*/
SQL>
SQL> /*13.The name for ‘Production’ department got changed to
‘Operations’. Update the DepartmentName column of this change
accordingly. ALso Repeat the SELECT statement in question #9 above to
verify your output.  */
SQL> UPDATE DeptBusiness
  2      SET DepartmentName = 'Operations'
  3   WHERE DepartmentName= 'Production';

1 row updated.

SQL> /*The 'DepartmentName' has been updated from 'Production' to
'Operations'*/
SQL>
SQL> SELECT *
  2  FROM DeptBusiness;

DEPARTMENTNUMBER DEPARTMENTNAME            MANAG
---------------- ------------------------- -----
            1106 CMIS
            1105 Accounting
            1100 Operations
            1102 Economic Finance

SQL> /*The modified department name can be observed in the output.*/
SQL>
SQL> /*14.Alter the deptBusiness  table to add a column that will be used
to store the department phone.  Name this column DepartmentPhone and use
an appropriate NUMBER datatype specification.  You do not need to store
```

```
any data to this column. Also Repeat the SELECT statement in question #9
above to verify your output. */
SQL> ALTER TABLE DeptBusiness ADD (DepartmentPhone  NUMBER (10));

Table altered.

SQL> /*A new column named 'DepartmentPhone' has been successfully added
to the 'DeptBusiness' table.*/
SQL>
SQL> SELECT *
  2  FROM DeptBusiness;

DEPARTMENTNUMBER DEPARTMENTNAME            MANAG DEPARTMENTPHONE
---------------- ------------------------- ----- ---------------
            1106 CMIS
            1105 Accounting
            1100 Operations
            1102 Economic Finance

SQL> /*Output clearly shows newly added column 'DepartmentPhone' in the
table DeptBusiness*/
SQL>
SQL>
SQL> /*15.Use the DROP command to drop the DeptBusiness table. Use the
SELECT statement given in question #9 above to display the deptBusiness
table.   */
SQL> DROP TABLE DeptBusiness;

Table dropped.

SQL> /*Table has been sucessfully droped out from out database*/
SQL>
SQL> SELECT *
  2  FROM DeptBusiness;
FROM DeptBusiness
     *
ERROR at line 2:
ORA-00942: table or view does not exist


SQL> /*yes,error message appears, Since Table was already droped out form
the database so the output is: table does not exist*/
SQL> /*THE END*/
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL> SPOOL OFF
SQL> /*Sagar Kalauni*/
SQL> /*Lab4-Kalauni*/
SQL>
SQL> /*Q NO. 1) Write a query that will select all columns from the
Specialty table without using the (*) in your query. You may wish to use
the DESCRIBE command to examine the structure of the Specialty table*/
SQL> /*First let's look at all the columns in the Specialty Table using
DESC command */
SQL> DESC Specialty;
 Name                                      Null?    Type
 ----------------------------------------- -------- ---------------------
-------
 SPECIALTYID                               NOT NULL CHAR(6)
 TITLE                                     NOT NULL VARCHAR2(50)
 AWARDEDBY                                          VARCHAR2(100)

SQL>
SQL> /*Manually selecting all columns of the Specialty table*/
SQL> SELECT SpecialtyID, Title, AwardedBy
  2  FROM Specialty;

SPECIA TITLE
------ --------------------------------------------------
AWARDEDBY
-------------------------------------------------------------------------
-------
OPT    Optometrist
Complete certified program of instruction for Optometry.

ONC    Oncologist
Complete Medical Doctor of Oncology board certification.

RAD    Radiologist
Complete Medical Doctor of Radiology board certification.


SPECIA TITLE
------ --------------------------------------------------
AWARDEDBY
-------------------------------------------------------------------------
-------
CAR    Cardiologist
Complete Medical Doctor of Cardiology board certification.

GYN    Gynecologist
Complete Medical Doctor of Gynecology board certification.

GMD    General Practitioner
Complete Medical School.


SPECIA TITLE
------ --------------------------------------------------
AWARDEDBY
```

```
-------------------------------------------------------------------------
-------
SU1    Surgeon-Thoracic
Complete Thoracic Surgeon board certification.

SU2    Surgeon-General
Complete General Surgeon board certification.

SU3    Neurosurgeon
Complete Neurosurgery board certification.


SPECIA TITLE
------ --------------------------------------------------
AWARDEDBY
-------------------------------------------------------------------------
-------
PED    Pediatrician
Complete Medical Doctor of Pediatrics board certification.

SU4    Surgeon-Abdominal Cavity
Complete Abdominal Surgical Procedures board certification.

RN1    Registered Nurse
Complete Registered Nurse board certification.


SPECIA TITLE
------ --------------------------------------------------
AWARDEDBY
-------------------------------------------------------------------------
-------
LPN    Licensed Practicing Nurse
Complete Licensed Practicing Nurse board certification.

NPR    Nurse-Practitioner
Complete Nurse-Practitioner board certification.

RA2    Radiology Technologist
Complete program of instruction in radiology technology.


15 rows selected.

SQL> /*OBSERVATION;- We can see Specialty table with all its columns*/
SQL>
SQL> /*Q NO.2)Your manager wonders what types of employee titles are
tracked in the Employee table.  Produce a sample listing of the titles of
employees at the hospital that does not include any duplicate rows. */
SQL> /*Using distinct command to select the all non duplicated titles in
the employee table*/
SQL> SELECT distinct title
  2  FROM Employee;
```

```
TITLE
--------------------------------------------------
Hospital Chief
M.D.
Pharmacist
M.D.-Chief of Surgery
Records Clerk
Rad. Tech.
R.N.
V.P. Admin
Building Custodian
L.P.N.

10 rows selected.

SQL> /*OBSERVATION:- So There are 10 different type of employee titles in
the employee table*/
SQL>
SQL> /*Q NO. 3)Execute a query that will display all treatment dates for
patient 100302.  Include the patientID, employeeID, and date treated.*/
SQL> /*To fully show column name and make our output infromative,
formating done initially*/
SQL> COLUMN PatientID    FORMAT   A10;
SQL> COLUMN EmployeeID   FORMAT   A12;
SQL> COLUMN DateTreated  FORMAT   A12;
SQL> SELECT  PatientID, EmployeeID, DateTreated
  2  From Treatment
  3  WHERE PatientID='100302';

PATIENTID  EMPLOYEEID   DATETREATED
---------- ------------ ------------
100302     66427        05-SEP-23
100302     67585        05-SEP-23
100302     67585        05-SEP-23
100302     66444        05-SEP-23
100302     67585        05-SEP-23

SQL> /*OBSERVATION:- All required data for patient with
patientid=100302*/
SQL>
SQL> /*Q NO.4)Execute a query that lists all the male nurses – i.e.,
employees with a job title that includes the degree ‘R.N..’ List each
employee’s last name, first name, title, and gender. Format your columns
so that lastName is 12 characters, firstName is 12 characters, title is 5
characters, and gender is 6 characters.*/
SQL> /*M- Male as a gender*/
SQL> COLUMN LastName  FORMAT   A12;
SQL> COLUMN FirstName FORMAT   A12;
SQL> COLUMN Title     FORMAT   A5;
SQL> COLUMN Gender    FORMAT   A6;
SQL> SELECT LastName, FirstName, Title, Gender
  2  FROM Employee
  3  WHERE Title LIKE '%R.N..%' AND Gender='M';
```

```
no rows selected

SQL>
SQL> /*Q No.5)Produce a listing that will only display patients from
Alton or Collinsville. The result table should display the first name and
last name of these patients as well as the city they are from. Sort the
report by city. Format first name and last name so they are 12 characters
wide each.*/
SQL> /*While looking for city in where condition, we should give the city
name as they are in the table, because it is case sensetive*/
SQL> COLUMN LastName FORMAT A12;
SQL> COLUMN FirstName FORMAT A12;
SQL> SELECT FirstName, LastName, City
  2  FROM Patient
  3  WHERE City IN ('Alton', 'Collinsville')
  4  ORDER BY City;

FIRSTNAME    LASTNAME     CITY
------------ ------------ -------------------------
Andrew       Able         Alton
Ronald       Howard       Alton
Barbara      Benton       Alton
Gretchen     Greathouse   Alton
Gregory      Grant        Alton
Harold       Harnett      Alton
Ivy          Iona         Alton
Juliet       Juneau       Alton
Keith        Kraut        Alton
Linda        Lima         Alton
Hank         Henderson    Alton

FIRSTNAME    LASTNAME     CITY
------------ ------------ -------------------------
Ilama        Ilama        Alton
Norman       November     Alton
Rudolph      Pappa        Alton
Renny        Reinhardt    Alton
Zina         Zenna        Alton
Albert       Algebra      Alton
Bradley      Beaufort     Alton
Danny        Dunland      Alton
David        Davis        Collinsville
Rue          Chen         Collinsville

21 rows selected.

SQL> /*OBSERVATION:- There are 21 patients from city Alton and
Collinsville combinedly */
SQL>
SQL> /*Q NO.6)Execute a query that will display all equipment with an
original cost below $500, AND either have 10 or more items in stock
(quantityAvailable) OR are used in project 8.  List the equipment
description, original cost, quantity available, and project number.
```

```
Format your columns so that the output fits on one row.  Format your
columns so the output fits on one row.*/
SQL> /*First looking at the table and resizing the format*/
SQL> COLUMN Description FORMAT A12;
SQL> COLUMN "Orginal Cost" FORMAT 9999.99;
SQL> COLUMN "Quantity Available" FORMAT 9999;
SQL> COLUMN "Project Number" FORMAT 99;
SQL> SELECT Description, OriginalCost "Orginal Cost", QuantityAvailable
"Quantity Available", ProjectNumber "Projec Number"
  2  FROM Equipment
  3  WHERE OriginalCost<500 AND (QuantityAvailable>=10 OR
ProjectNumber=8);

DESCRIPTION  Orginal Cost Quantity Available Projec Number
------------ ------------ ------------------ -------------
Tanks, Nitro       355.55                 10             2
us Oxide

Desk, Child        285.40                  6             8
Chair, Child        65.40                 12             8

SQL> /*OBSERVATION:- Output fits perfectly*/
SQL>
SQL> /*Q NO.7)The CFO needs a report to justify standard charges to the
State Health Department. The report should contain the description,
standard charge, and category ID. Sort the report by categoryID and then
by standard charge. Use the appropriate command to limit the output
column width for the description to 30 characters. The report should be
sorted first by categoryID and then by standard charge with the highest
standard charge for each category appearing first.*/
SQL> COLUMN Description  A30;
SP2-0158: unknown COLUMN option "A30"
SQL> SELECT Description, StandardCharge, CategoryID
  2  FROM Service
  3  ORDER BY CategoryID, StandardCharge DESC;

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
EKG/Interp               85 CAR
Hep B 20-adu            195 INJ
lt

Hep B 0-19 V            185 INJ
FC

Hep A vaccin            175 INJ
e

Antibiotic I            110 INJ

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
nj
```

```
Depo Provera             95 INJ
 Hormone tx

Prevnar Pedi             92 INJ
Pneumovax ad             88 INJ
ult

Depo Provera             85 INJ
 Contracept

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---

Therapeutic              75 INJ
Inj

Vaccine Inj              75 INJ
#2 + more

DPT-AC VFC               75 INJ
DPT-AC /HIB              75 INJ
dT Adult VFC             75 INJ
Varicella Va             65 INJ

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
c VFC

HIB VFC                  65 INJ
Fluvax                   55 INJ
IPV VFC                  55 INJ
MMR VFC                  55 INJ
Allergy #2 +             55 INJ
 more

Vaccine Inj              45 INJ
#1

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---

Allergy #1               25 INJ
Complete Met            115 LAB
abolic

Prenatal Pan            110 LAB
el

Hgb A1C                  95 LAB
Hepatic Func             95 LAB
tion

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
```

```
TSH                      90 LAB
PSA                      85 LAB
Protime/INR              75 LAB
Arthritis Pa             75 LAB
nel (RA, ANA
, UA, ESR)

Pap Smear                75 LAB
General Pane             55 LAB
l

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---

Pathology-Ge             50 LAB
neral

Lipid Panel              45 LAB
Throat Cultu             45 LAB
re

Urine Cultur             45 LAB
e


DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
Basic Metabo             35 LAB
lic

SGOT                     30 LAB
CBC                      21 LAB
Emergency               155 OLA
After Hours             125 OLA
Comprehensiv             95 OLA
e High

Detailed Pro             95 OLA

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
blem

Comprehensiv             75 OLA
e. Moderate

Expanded Pro             75 OLA
blem

Problem Focu             55 OLA
sed
```

```
DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
Special Hand          35.75 OLA
ling

Blood Draw            35.55 OLA
Hemoglobin               25 OLA
Blood Glucos           20.4 OLA
e

Hemocult               15.4 OLA
KOH                      15 OLA
Wet Smear                15 OLA

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
Strep Screen           13.5 OLA
Urine/Micro            12.9 OLA
Prognosis, U             12 OLA
rine

Urine/Dip             10.75 OLA
Spirometry               55 PRO
Audiometry               45 PRO
Tympanometry             40 PRO
Cerumen-oval             35 PRO
Burn Debride             35 PRO

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
ment

Breathing TX             35 PRO
DRE                      30 PRO
Pulse Oxygen             25 PRO
Anoscopy                 21 PRO
Lumbar Spine            675 RAD
 (5 view)

Abdomen Obst            340 RAD
 Series

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---

Foot (3 view            325 RAD
)

Ankle (3 vie            325 RAD
w)

Knee (3 view            325 RAD
)
```

```
Wrist (3 vie            285 RAD

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
w min)

Hand (3 view            280 RAD
)

Calcaneus (2            275 RAD
 view min)

Soft Tissue             275 RAD
Neck


DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
Hip (2 view             275 RAD
min)

Clavicle (2             250 RAD
view)

Shoulder (2             250 RAD
view min)

Abdomen (KUB            240 RAD
)

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---

CXR (2 view)            225 RAD
Elbow (2 vie            225 RAD
w)

Toe (2 view             225 RAD
min)

Finger (2 vi            225 RAD
ew)


DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
C-Spine (4 v            205 RAD
iew min)

CXR (1 view)            170 RAD
Cranial               10000 SUR
Thoracic-Hea           9500 SUR
rt
```

```
Abdominal-In           7800 SUR
testine


DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
Liver                  7800 SUR
Kidneys                7500 SUR
Pancreatic             6500 SUR
Thoracic-Lun           6500 SUR
g

Thoracic-Gen           6200 SUR
eral Explora
tory

Abdominal-Ge           6000 SUR

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
neral

Spinal-Disc            3800 SUR
Spinal-Explo           3500 SUR
ratory

Fracture-Com           2500 SUR
plex

Fracture-Sim           1500 SUR
ple

DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---

Appendectomy            555 SUR
I and D Comp            320 SUR
. Multiple

I and D Simp            258 SUR
le

Cerumen-oval            230 SUR
 F.B.


DESCRIPTION  STANDARDCHARGE CAT
------------ -------------- ---
Skin Lesion             225 SUR
Paring

Nail Bed Des            185 SUR
truct
```

```
Nail Avulsio            175 SUR
n


105 rows selected.

SQL> /*OBSERVATION:-
> Nicely shorted table, with 105 rows*/
SQL>
SQL>
SQL>
SQL> SPOOL OFF;
SQL> /*Sagar Kalauni*/
SQL> /*Lab5-Kalauni*/
SQL>
SQL> /*Q No.1)The charge nurse wants to see the medications that have
instructions for child dosages and have a quantity on hand of less than
1,000. Instructions indicating if the medicine is for children can be
found in the dosage field of the Medicine table. The term child may
appear anywhere in this field. Create a list that includes the common
name and scientific name of the medication. Restrict common name to 15
characters and scientific names to 20 characters.*/
SQL> COLUMN Commonname FORMAT A15;
SQL> COLUMN ScientificName FORMAT A20;
SQL> SELECT Commonname, ScientificName
  2  FROM Medicine
  3  WHERE Dosage LIKE '%child%' AND QuantityOnhand < 1000;

COMMONNAME           SCIENTIFICNAME
-------------------- --------------------------------------------------
Atarax               Hydroxyzine

SQL> /*OBSERVATION:- So the required medication name is
Atarax(commonname)*/
SQL>
SQL> /*Q.NO2)The HR director of the hospital has learned that the average
monthly salary of employees is about $15,000. She would like a report of
all employee names who earn more than $10,000 a month and less than
$20,000 monthly. Use the BETWEEN operator. Sort by salary. Include the
first name and last name of the employee (restrict both names to 12
characters) as well as the salary.*/
SQL> COLUMN "First Name" FORMAT A12;
SQL> COLUMN "Last Name" FORMAT A12;
SQL> COLUMN "moSalary" FORMAT $99,999;
SQL> SELECT FirstName "First Name", LastName "Last Name", Salary
"moSalary"
  2  FROM Employee
  3  WHERE Salary BETWEEN 10000 AND 20000
  4  ORDER BY Salary;

First Name   Last Name    moSalary
------------ ------------ --------
Maxwell      Eakin         $15,000
Robert       Klepper       $15,055
Douglas      Bock          $16,250
Elizabeth    Sumner        $16,500
Eugene       Webber        $17,500
Beverly      Boudreaux     $17,520
Robert       Schultheis    $17,525
Bijoy        Bordoloi      $17,850

8 rows selected.

SQL> /*OBSERVATION:- So there are 8 employees whose salary is in between
$10,000 to $20,000*/
SQL>
SQL> /*Q NO.3)There has been a surge of parents requesting private rooms
for their children who have been admitted for surgery. Provide a list of
beds available in the following pediatric rooms: PED101 – PED105
inclusive. Use the IN command. The room number, bedtype, and availability
should be shown in the report. Use meaningful column titles.*/
SQL> /*To make output result more informative and clear, formating done*/
SQL> COLUMN "Bed Number" FORMAT A12;
SQL> COLUMN "Bed Type" FORMAT A10;
SQL> COLUMN "Bed Availability" FORMAT A18;
SQL> SELECT RoomNumber "Bed Number", BedType "Bed Type", Availability
"Bed Availability"
  2  FROM Bed
  3  WHERE RoomNumber IN ('PED101', 'PED102', 'PED103', 'PED104',
'PED105');

Bed Number   Bed Type   Bed Availability
------------ ---------- ------------------
PED101       P1         N
PED102       P1         Y
PED103       P1         N
PED104       P2         Y
PED105       P2         Y

SQL> /*OBSERVATION:- All required information of Pediatric Rooms for 101
to 105*/
SQL>
SQL> /*Q NO.4)The director of HR would like to implement a process of
sending birthday cards to the children of employees. She is requesting a
report that contains the first names and birthdates of all sons and
daughters of employees. You must use the IN command.*/
SQL> SELECT Name "First Name", BirthDate
  2  FROM Dependent
  3  WHERE RelationshipToEmployee IN ('SON', 'DAUGHTER');

First Name   BIRTHDATE
------------ ---------
Jo Ellen     05-APR-16
Andrew       25-OCT-18
Jeffery      01-JAN-08
Deanna       31-DEC-09
Rachael      04-OCT-15
Michelle     17-MAR-04
Anita        06-JUL-14
Monica       30-DEC-16
Rita         11-MAY-18

9 rows selected.

SQL> /*OBSERVATION:- Table showing firstname and birthday of son's and
daughter's of employees*/
SQL>
SQL> /*Q NO.5)Execute a query that will display all employees whose last
name contains the lower case letter 'o' except for the second character
```

```
(i.e., the second character can be anything but ‘o’. List each employee's
first and last name. Use meaningful column titles.*/
SQL> SELECT FirstName "First Name", LastName "Last Name"
  2  FROM Employee
  3  WHERE LastName LIKE '%o%' AND LastName NOT LIKE '_o%';

First Name   Last Name
------------ ------------
Lester       Simmons
Billy        Thornton
William      Clinton
William      Barlow
Toni         Quattromani
Mary Ellen   Brockwell
Leslie       Simmons

7 rows selected.

SQL> /*OBSERVATION:- So there are 7 employees who have o in their
lastname but not in the second position*/
SQL>
SQL> /*Q NO.6)Execute a query that lists all employee table rows that
contain a null value in the salary column. List each employee’s last name
and supervisor identifying number. Use meaningful column titles. Limit
column width so a line fits on a single row.*/
SQL> COLUMN "Last Name" FORMAT A10;
SQL> COLUMN "Supervisor Identifying Number" FORMAT A30;
SQL> SELECT LastName "Last Name", SupervisorID "Supervisor Identifying
Number"
  2  FROM Employee
  3  WHERE Salary IS NULL;

Last Name  Supervisor Identifying Number
---------- ------------------------------
Thornton   33355
Clinton    33355

SQL> /*OBSERVATION:- So there are 2 employees whose salary is null*/
SQL>
SQL> /*Q NO.7)Execute a query that will display all patients whose first
name begins with the same letter as your first name. List each patient’s
first name and last name. Format the output so the full name appears on
one line.  Provide meaningful column titles.  If your last name begins
with the X, list patients whose first name begins with the same letter as
your middle name. Use meaningful column titles.*/
SQL> /*As my first name is Sagar*/
SQL> COLUMN "First Name" FORMAT A12;
SQL> COLUMN "Last Name" FORMAT A12;
SQL> SELECT FirstName "First Name", LastName "Last Name"
  2  FROM Patient
  3  WHERE FirstName LIKE 'S%';

First Name   Last Name
------------ ------------
```

```
Samuel       Santiago
Sally        Surrey

SQL>
SQL> /*As my lastname is Kalauni,and I do not have middle name, below I
am searching for employee whose first name begin with first character of
my last Name*/
SQL> SELECT FirstName "First Name", LastName "Last Name"
  2  FROM Patient
  3  WHERE FirstName LIKE 'K%';

First Name   Last Name
------------ ------------
Keith        Kraut
Krakatoa     Khan

SQL>
SQL> /*Q NO.8)Execute a query that will display each employee's last
name, annual salary, monthly salary, and weekly salary.  The list should
only include employees with a weekly salary that is less than $1,000.00.
Label the column names for annual salary, monthly salary, and weekly
salary as Annual, Monthly, and Weekly, respectively.  Sort the output by
employee last name. Format the columns named Annual, Monthly, and Weekly
as $999,999.99.  Be careful in how you compute the weekly salary! You may
assume 4 weeks to a month.  You can assume the field Salary represents
the monthly salaries of employees.  Use meaningful column titles*/
SQL> COLUMN "Annual" FORMAT $999,999.99;
SQL> COLUMN "Monthly" FORMAT $999,999.99;
SQL> COLUMN "Weekly" FORMAT $999,999.99;
SQL> SELECT LastName "Last Name", Salary*12 "Annual", Salary "Monthly",
Salary/4 "Weekly"
  2  FROM Employee
  3  WHERE Salary/4 < 1000
  4  ORDER By LastName;

Last Name          Annual      Monthly       Weekly
------------ ------------ ------------ ------------
Simmons        $26,400.00    $2,200.00      $550.00
Young          $26,400.00    $2,200.00      $550.00

SQL>
SQL> /*The End*/
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
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SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL> SPOOL OFF;
SQL> /*Sagar Kalauni*/
SQL> /* Lab6-Kalauni*/
SQL>
SQL> /*Q.NO. 1)A manager from the human resources department needs you to
write a query to count the number of employees of the company that are
nurses (either Title = ‘R.N.’ OR Title = ‘L.P.N.’.  Label the output
column Number of Nurses. */
SQL> /*OBSERVATION:- There are 2 Nurses*/
SQL> SELECT count(*) "Number of Nurses"
  2  FROM Employee
  3  WHERE Title in ('R.N', 'L.P.N.');

Number of Nurses
----------------
               2

SQL>
SQL> /*Q.NO.2)Accountants working on the company’s annual budgeting
process need to know the average cost of the equipment being used on
projects (originalCost) and the sum of all equipment costs. The
information is stored in the Equipment table. The result table should
have two columns based on a single query. Label the columns Average
Equipment Cost and Total Equipment Cost. Format the output as $99,999.99.
*/
SQL> /*OBSERVATION:- Average Cost is $2,019.85 and Total cost is
$18,178.67*/
SQL> COLUMN "Average Equipment Cost" FORMAT $99,999.99;
SQL> COLUMN "Total Equipment Cost" FORMAT $99,999.99;
SQL> SELECT AVG(OriginalCost) "Average Equipment Cost", SUM(OriginalCost)
"Total Equipment Cost"
  2  FROM Equipment;

Average Equipment Cost Total Equipment Cost
---------------------- --------------------
             $2,019.85           $18,178.67

SQL>
SQL> /*Q>NO.3)The BirthDate column in the dependent table stores date of
birth information for dependents of employees of the company. Write a
query to display the date of birth of the oldest dependent listed in the
table.  No special output column label is required.*/
SQL> /*Used Minimum to find the oldest dependent*/
SQL> SELECT MIN(BirthDate)
  2  FROM Dependent;

MIN(BIRTH
---------
05-MAY-76

SQL>
SQL> /*Q.NO.4)Write a query to provide the Executive Director with the
total hours worked per project. Use the ProjectNumber and HoursWorked
columns from the ProjectAssiginment table to obtain the project numbers
and hours worked, respectively. Label the two columns Project Number and
```

```
Total Hours respectively.  Sort by project number. Format the output for
the Total Hours column as 999.99.*/
SQL> /*OBSERVATION:- Nice table showing Project Number and Total hours as
output*/
SQL> COLUMN "Total Hours" FORMAT 999.99;
SQL> SELECT ProjectNumber "Project Number" ,SUM(HoursWorked) "Total
Hours"
  2  FROM ProjectAssignment
  3  GROUP BY ProjectNumber
  4  ORDER BY ProjectNumber;

Project Number Total Hours
-------------- -----------
             1       14.20
             2       10.60
             3       52.80
             4       69.10
             5       86.10
             6
             7       27.00
             8       47.10

8 rows selected.

SQL>
SQL> /*Q.NO.5)The government reporting regulation also requires a report
of the count of all employees who are NOT M.D.s. M.D. could appear
anywhere in the title. Write a query that will produce a result table
with two columns labeled Title and Non M.D. Employees. Format the Title
column so it is 20 characters.*/
SQL> /*Where clause has eliminated any who has something title like M.D*/
SQL> /*OBSERVATION:- So there are total of 11 non M.D Employees*/
SQL> SELECT Title "Title", COUNT(Title) "NON M.D Employees"
  2  FROM Employee
  3  WHERE Title NOT LIKE '%M.D%'
  4  GROUP BY Title;

Title                                              NON M.D Employees
-------------------------------------------------- -----------------
Hospital Chief                                                     1
Pharmacist                                                         1
Records Clerk                                                      1
Rad. Tech.                                                         1
R.N.                                                               2
V.P. Admin                                                         1
Building Custodian                                                 2
L.P.N.                                                             2

8 rows selected.

SQL>
SQL> /*Q.NO.6)The CEO would like a report with PatientIDs and the total
amount of treatment charges they have had. The resulting report should
have two columns: Patient and Total Charges. The report should be listed
```

```
in Total Charges order with the patients with the lowest Total Charges at
the top. The CEO wants to see only those patients whose total charges are
less than $350. */
SQL> /*OBSERVATION:- Output is table with patient and their total
charge*/
SQL> SELECT PatientID "Patient", SUM(ChargeAmount) "Total Charges"
  2  FROM Treatment
  3  GROUP BY PatientID
  4  HAVING SUM(ChargeAmount)< 350
  5  ORDER BY SUM(ChargeAmount);

Patien Total Charges
------ -------------
100001          15.4
555005            30
100024         55.95
421224         60.55
100002            65
100051            75
100028            75
222002            75
333115            95
333110           110
421227           115

Patien Total Charges
------ -------------
100029           125
100026           130
421223           145
100025           150
100423           155
333113           165
100506           170
666120           185
333111        185.55
333114        190.55
100305           195

Patien Total Charges
------ -------------
421226        210.55
421225           215
100030        215.55
666118           225
100301           230
100503           240
100502        245.55
100425           250
222006           258
100505           300
333116        310.55

Patien Total Charges
```

```
------ -------------
421228           325
421222           325
100302        325.55
100501        331.55

37 rows selected.

SQL>
SQL> /*Q.NO.7)Modify the query written for question 6.  Now the CEO would
like to see average charges for treatments each patient is responsible
for.  But, he does not want treatment charges of under $500 considered in
the average.  After averaging, the report should show only those patients
whose average treatment charges are greater than $500. */
SQL> /*Where condition eliminates rows having chargeamount less then or
equal 500*/
SQL> /*OBSERVATION:- Output is table with patient and their average
charge*/
SQL> SELECT PatientID "Patient", AVG(ChargeAmount) "average charges"
  2  FROM Treatment
  3  WHERE ChargeAmount>=500
  4  GROUP BY PatientID
  5  HAVING AVG(ChargeAmount)>500
  6  ORDER BY SUM(ChargeAmount);

Patien average charges
------ ---------------
100003             555
100031             600
421221            1480
100306            6200
100500            6500
666121            6500
222001            7800
100424            8500

8 rows selected.

SQL>
SQL> /*                            THE END
*/
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL> SPOOL OFF;
SQL> /*Sagar Kalauni*/
SQL> /* Lab7-Kalauni*/
SQL>
SQL> /*Q.NO.1)The company’s vice president for project management needs a
listing of employees who have received specialties. The result table
should list the employee name (last name first, then first name) and
their associated specialty title and the date they received the
specialty.  Format the columns so output lines are on a single row.  The
column header for the Specialty title should be ‘Specialty Name’. */
SQL> /*OBSERVATION:- So 21 employees has recived Specialities */
SQL> COLUMN "Employee Name" FORMAT A24;
SQL> COLUMN "Specialty Name" FORMAT A27;
SQL> COLUMN "Date Recived" FORMAT A12;
SQL> SELECT LastName||', '||FirstName "Employee Name" , s.Title
"Specialty Name", DateReceived "Date Recived"
  2  FROM Employee e JOIN EmployeeSpecialty es ON
(e.EmployeeID=es.EmployeeID) JOIN Specialty s ON
(es.SpecialtyID=s.SpecialtyID);

Employee Name            Specialty Name              Date Recived
------------------------ --------------------------- ------------
Simmons, Lester          Registered Nurse            04-FEB-12
Eakin, Maxwell           General Practitioner        04-DEC-16
Eakin, Maxwell           Surgeon-General             04-DEC-19
Bock, Douglas            General Practitioner        12-FEB-07
Webber, Eugene           Radiologist                 04-MAY-12
Bordoloi, Bijoy          Radiologist                 11-AUG-07
Smith, Alyssa            Radiology Technologist      04-DEC-08
Sumner, Elizabeth        General Practitioner        05-DEC-14
Sumner, Elizabeth        Surgeon-General             15-DEC-14
Becker, Robert           Surgeon-Thoracic            02-NOV-00
Jones, Quincey           Surgeon-General             15-DEC-09

Employee Name            Specialty Name              Date Recived
------------------------ --------------------------- ------------
Barlow, William          Neurosurgeon                12-MAY-15
Smith, Susan             Surgeon-General             22-AUG-16
Klepper, Robert          Oncologist                  04-JAN-03
Zumwalt, Mary            Registered Nurse            08-MAR-08
Quattromani, Toni        Cardiologist                25-MAY-12
Becker, Roberta          Surgeon-Abdominal Cavity    04-DEC-02
Brockwell, Mary Ellen    Nurse-Practitioner          06-DEC-15
Simmons, Leslie          Licensed Practicing Nurse   22-MAR-18
Young, Yvonne            Licensed Practicing Nurse   15-DEC-15
Schultheis, Robert       General Practitioner        10-DEC-99

21 rows selected.

SQL>
SQL> /*Q.NO.2)The hospital pharmacist would like a report listing patient
first and last names (concatenated) who have been prescribed Valium.  The
result table should have just two columns, Patient Name and CommonName.
Use relevant column headers and format commonName so it is 10 or fewer
characters.*/
```

```
SQL> /*OBSERVATION:- Patient Name who are Prescribed Valium*/
SQL> COLUMN "CommonName" FORMAT A10;
SQL> SELECT LastName||', '||FirstName "Patient Name", CommonName
"CommonName"
  2  FROM patient p JOIN Prescription pr ON (p.PatientID=pr.PatientID)
JOIN Medicine m ON (pr.MedicineCode=m.MedicineCode)
  3  WHERE Commonname='Valium';

Patient Name         CommonName
-------------------- ----------
Youngman, Yvonne     Valium
Zebulon, Zeb         Valium
Ridgeway, Ricardo    Valium

SQL>
SQL> /*Q.NO.3)The company's vice president for project management needs a
listing of employees assigned to projects.  The result table should list
the LastName and FirstName column values (concatenated into one column)
and their ProjectTitle and HoursWorked (from the projectAssignment
table).  The result table should only list employees assigned to a
project that have worked on the project more than 10 hours.  Sort results
by employee last name and then by project number.  Use alias names for
the table names.  Give each column an appropriate column name.
HoursWorked has a decimal.*/
SQL> /*OBSERVATION:- Nicely formated table with employee name, their
project title and hours worked*/
SQL> COLUMN "Hours Worked" FORMAT 99.9;
SQL> SELECT LastName||', '||FirstName "Employee Name", ProjectTitle
"Project Title", HoursWorked "Hours Worked"
  2  FROM Employee e JOIN ProjectAssignment pa ON
(e.EmployeeID=pa.EmployeeID) JOIN Project p ON
(pa.ProjectNumber=p.ProjectNumber)
  3  WHERE HoursWorked >10
  4  ORDER BY LastName, p.ProjectNumber;

Employee Name            Project Title             Hours Worked
------------------------ ------------------------- ------------
Adams, Adam              Child Care Center                 23.0
Bock, Douglas            New MRI Installation              10.2
Bordoloi, Bijoy          Remodel ER Suite                  10.3
Brockwell, Mary Ellen    New Pediatric Monitors            14.8
Eakin, Maxwell           New Surgical Suite                14.2
Eakin, Maxwell           Remodel Surgical Suite            10.6
Klepper, Robert          New MRI Installation              11.8
Klepper, Robert          Remodel ER Suite                  19.2
Simmons, Lester          Personnel Records Update          35.4
Simmons, Lester          New Pediatric Monitors            12.2
Simmons, Lester          Child Care Center                 24.1

Employee Name            Project Title             Hours Worked
------------------------ ------------------------- ------------
Smith, Alyssa            New MRI Installation              30.8
Smith, Susan             Remodel ER Suite                  34.5
Thornton, Billy          Personnel Records Update          41.2
```

```
14 rows selected.

SQL>
SQL> /*Q.NO4)Produce a query that will list all employee last names,
employee gender, dependent names and dependent gender where the
employee's have dependents of the same gender.  Also list the dependent
relationship.  The columns needed in the result table are LastName,
employee.Gender, dependent.Name, dependent.Gender, and
RelationshipToEmployee.  Use the employee and dependent tables.  Use the
FROM clause to join the tables.  Use the column names and formats shown
below.  Sort the result table by LastName.
SQL> COLUMN "Employee" FORMAT A10;
SQL> COLUMN "Emp Gender" FORMAT A10;
SQL> COLUMN "Dependent" FORMAT A10;
SQL> COLUMN "Dep Gender" FORMAT A10;
SQL> COLUMN "Relationship" FORMAT A12; */
SQL> /*OBSERVATION:- Nicely formated table with infromation of employee,
dependent their relation and gender */
SQL> COLUMN "Employee" FORMAT A10;
SQL> COLUMN "Emp Gender" FORMAT A10;
SQL> COLUMN "Dependent" FORMAT A10;
SQL> COLUMN "Dep Gender" FORMAT A10;
SQL> COLUMN "Relationship" FORMAT A12;
SQL> SELECT LastName "Employee", employee.Gender "Emp Gender",
dependent.Name "Dependent", dependent.Gender "Dep Gender",
RelationshipToEmployee "Relationship"
  2  FROM employee JOIN dependent ON
(employee.EmployeeID=dependent.EmployeeID)
  3  WHERE employee.Gender=dependent.Gender
  4  ORDER BY LastName;

Employee   Emp Gender Dependent  Dep Gender Relationship
---------- ---------- ---------- ---------- ------------
Bock       M          Jeffery    M          SON
Simmons    M          Andrew     M          SON

SQL>
SQL> /*Q.NO.5)The director of Pediatric Nursing requires a report listing
each patient name, their bedNumber and their roomNumber for pediatric
patients only.  You will need to figure out how to determine which rooms
are for pediatric patients and there is more than one way to do this. The
result tale should display the patient’s first and last names
concatenated, their bednumber, and roomnumber. Assign appropriate column
headers and format so the columns fit on a single line.*/
SQL> /*OBSERVATION:- Name and bed number and room no. of the patient in
pediatric*/
SQL> COLUMN "Patient Name" FORMAT A20;
SQL> SELECT p.FirstName||' '||p.LastName "Patient Name", bedNumber "Bed
Number",  roomNumber "Room Number"
  2  FROM Patient p JOIN Bed b
  3  ON (p.bedNo = b.bedNumber)JOIN Prescription pr
  4  ON (pr.patientID = p.patientID) JOIN Employee e
  5  ON (pr.employeeID = e.employeeID) JOIN Department d
  6  ON (e.departmentNumber = d.departmentNumber)
  7  WHERE departmentName = 'Pediatrics-Gynecology';

Patient Name         Bed Number Room Number
-------------------- ---------- ------------
Freddy Fender                70 RE0001
Zeb Zebulon                  52 ER0001
Arthur Ashcroft              53 ER0001

SQL>
SQL> /*Q.NO.6)Management is expecting to start several new projects in
the near future.  A list of employees who are not currently assigned to a
project is needed.  This will provide management with a list of employees
who are potentially available to be assigned to projects. The result
table should list the LastName and FirstName column values (concatenated
into one column) from the employee table.  Sort the output by LastName
and FirstName.  Hint: You will need an OUTER join.*/
SQL> /*OBSERVATION:- So there are 13 employee who are not assigned to any
project currently*/
SQL> SELECT LastName||', '||FirstName "Employee Name"
  2  FROM Employee e LEFT OUTER JOIN ProjectAssignment pa ON
(e.EmployeeID=pa.EmployeeID) LEFT OUTER JOIN Project p ON
(pa.ProjectNumber=p.ProjectNumber)
  3  WHERE pa.Projectnumber IS NULL
  4  ORDER BY e.LastName, e.FirstName;

Employee Name
------------------------
Barlow, William
Becker, Robert
Becker, Roberta
Boudreaux, Betty
Boudreaux, Beverly
Clinton, William
Jones, Quincey
Schultheis, Robert
Simmons, Leslie
Sumner, Elizabeth
Webber, Eugene

Employee Name
------------------------
Young, Yvonne
Zumwalt, Mary

13 rows selected.

SQL>
SQL> /*Q.NO.7)The head of Facilities Management needs a list of all
roomnumbers and the patients currently in each room.  The result table
should include ALL room numbers in the hospital.  If a patient is
currently in the room, their name should be shown in firstName lastName
order and should be concatenated in a single column.  This will allow the
```

```
Facilities Management team to clean rooms that are currently
unoccupied.*/
SQL> /*OBSERVATION:- Nicely formated table showing bed number and the
patient name if occupied*/
SQL> SELECT RoomNumber "Room Number", FirstName||' '||LastName "Patient
Name"
  2  FROM Bed b LEFT OUTER JOIN Patient p ON (p.Bedno=b.BedNumber);

Room Number  Patient Name
------------ --------------------
MSS001       Barbara Benton
MSS002
MSS003
MSS004       Rue Chen
MSS005
MSS006       David Davis
MSS010       Earnest Earnhardt
MSS010
MSS011
MSS011
MSS012       Frank Franken

Room Number  Patient Name
------------ --------------------
MSS012
MSS013
MSS013       Gregory Grant
MSS014       Harold Harnett
MSS014       Ivy Iona
MSS015
MSS015       Juliet Juneau
MSN201
MSN202       Keith Kraut
MSN203       Mandy Monday
MSN204

Room Number  Patient Name
------------ --------------------
MSN205       Linda Lima
MSN210
MSN210       Nancy Nunn
MSN211
MSN211       Opal Ophelia
MSN212
MSN212       Paul Pauley
MSN213       Quincy Quentin
MSN213
MSN214
MSN214       Ricardo Ridgeway

Room Number  Patient Name
------------ --------------------
MSN215
MSN215       Samuel Santiago
```

```
ER0001       Yancey Young
ER0001
ER0001       Zeb Zebulon
ER0001       Arthur Ashcroft
ER0002
ER0002       Charlie Chang
ER0002       Darlene Davidson
ER0002
ER0002       Earlene Earnhardt

Room Number  Patient Name
------------ --------------------
ER0001       Billy Boudreaux
RE0001       Freddy Fender
RE0023
RE0023       Gina Gentry
RE0024
RE0031       Hank Henderson
RE0032       Ilama Ilama
RE0032       James Jupiter
RE0032       Krakatoa Khan
RA0075       Teresa Tempest
RA0075

Room Number  Patient Name
------------ --------------------
RA0076       Ulysses Unicorn
RA0077       Victor Victory
RA0077
RA0077       William Williams
RA0078
RA0078
SUR001
SUR002
SUR003
SUR004
SW3001       Mickey Mousseau

Room Number  Patient Name
------------ --------------------
SW3002
SW3003       Lillian Lakeside
SW3004
SW3005       Oliver Overstreet
SW3005
SW3006       Norman November
SW3006       Rudolph Pappa
SW3007
SW3007       Renny Reinhardt
SW3008       Quentin Queen
SW3008       Sally Surrey

Room Number  Patient Name
------------ --------------------
```

```
CC1001       Thomas Teal
CC1011       Vanna Vanquish
CC1021
CC1031       Uley Uniform
CC1031       Yvonne Youngman
CC1051       Zina Zenna
CC1061
PED101       Andrew Able
PED102       Albert Algebra
PED103
PED104       Bradley Beaufort

Room Number  Patient Name
------------ --------------------
PED105       Clyde Crawford
PED111
PED111
PED112       Danny Dunland
PED112       Ertha Ezzra
PED113
PED113       Filbert Funk
PED114
PED114       Gretchen Greathouse

97 rows selected.

SQL>
SQL> /*Q.NO.8)Produce a listing of number of employees who have earned
each specialty.  The result table should list the Specialty Name and
number of employees who have earned the specialty. Give each column an
appropriate column name and format Specialty Title to 30 characters.*/
SQL> /*OBSERVATION:- Nicely formated table showing count of employee have
particular type of specialty */
SQL> COLUMN "Specialty Name" FORMAT A30;
SQL> SELECT s.Title "Specialty Name", Count(e.employeeID) "No. of
Employees"
  2  FROM Employee e JOIN EmployeeSpecialty es ON
(e.EmployeeID=es.EmployeeID) JOIN Specialty s ON
(es.SpecialtyID=s.SpecialtyID)
  3  GROUP BY s.Title;

Specialty Name                 No. of Employees
------------------------------ ----------------
Cardiologist                                  1
General Practitioner                          4
Nurse-Practitioner                            1
Radiologist                                   2
Surgeon-Thoracic                              1
Surgeon-Abdominal Cavity                      1
Licensed Practicing Nurse                     2
Radiology Technologist                        1
Registered Nurse                              2
Neurosurgeon                                  1
Oncologist                                    1
```

```
Specialty Name                 No. of Employees
------------------------------ ----------------
Surgeon-General                               4

12 rows selected.

SQL>
SQL> /*Q.NO.9)Produce a listing with the number (count) of employees
assigned to each project within each department. The result table should
list the DepartmentName, ProjectTitle and number of employees. Give each
column an appropriate column name. Use either the WHERE or the FROM
clause to join the tables. This query is a little tricky – because you
have two attributes on the SELECT line along with the aggregate, your
GROUP BY statement will also need  attributes.*/
SQL> /*OBSERVATION:- Nicely formated table showing no. of employee
assigned to each project within each department*/
SQL> SELECT DepartmentName "Department Name", ProjectTitle "Project
Title", count(e.employeeID) "No. of Employees"
  2  FROM Employee e JOIN  Department d ON
(e.DepartmentNumber=d.DepartmentNumber) JOIN Project p ON
(d.DepartmentNumber=p.DepartmentNumber)
  3  GROUP BY p.ProjectTitle, d.DepartmentName;

Department Name           Project Title             No. of Employees
------------------------- ------------------------- ----------------
Admin/Labs                Personnel Records Update                 5
Emergency-Surgical        Remodel ER Suite                         5
Pediatrics-Gynecology     New Pediatric Monitors                   4
Pediatrics-Gynecology     Child Care Center                        4
Medical Surgical Ward 1   New Surgical Suite                       2
Medical Surgical Ward 1   Remodel Surgical Suite                   2
Radiology                 New MRI Installation                     3
Emergency-Surgical        Add Crash Cart Equipment                 5

8 rows selected.

SQL>
SQL> /*Q.NO.10)Produce a listing of the number of patients treated and
the total service charges ChargeAmount) received by each doctor (Title
includes ‘M.D.’). The result table should have three columns:  the
LastName and FirstName concatenated into one column, number of patients,
and the total service charges.  Give each column an appropriate column
name. Use either the WHERE or the FROM clause to join the tables.  You
must determine on your own which tables and columns are required to
produce the result table.*/
SQL> /*OBSERVATION:- Nicely formated table showing doctor's name, number
of patient he treated and service charege*/
SQL> COLUMN "Doctor Name" FORMAT A20;
SQL> COLUMN "Total Service Charge" FORMAT $99,999.99;
SQL> SELECT LastName||', '||FirstName "Doctor Name", Count(t.PatientID)
"Number of Patient", SUM(t.ChargeAmount) "Total Service Charge"
  2  FROM Employee e JOIN Treatment t on (e.EmployeeID=t.EmployeeID)
  3  WHERE Title LIKE '%M.D.%'
  4  GROUP BY e.LastName, e.FirstName;

Doctor Name          Number of Patient Total Service Charge
-------------------- ----------------- --------------------
Becker, Robert                       3            $7,075.00
Becker, Roberta                      4           $15,455.00
Sumner, Elizabeth                    8            $7,495.40
Schultheis, Robert                  12            $1,295.55
Bock, Douglas                       14            $1,575.40
Eakin, Maxwell                      13            $1,668.00
Barlow, William                      1            $8,500.00
Webber, Eugene                       2              $650.00
Quattromani, Toni                    2              $195.00
Bordoloi, Bijoy                      8            $3,165.00
Klepper, Robert                     11            $1,110.00

11 rows selected.

SQL>
SQL> /*Q.NO.11)The payroll department needs to regularly access
information about employee salary information.  The DBA of the company
has directed you to create a view based on the employee table named
vwSalary.  This view should include the employee identifying number,
employee last and first names (LastName and FirstName), and the salary
for each employee.  Name the columns of the view as follows:  EmpID,
EmpLastName, EmpFirstName, and EmpSalary. Write the SQL code needed to
create this view.  Write a SELECT statement to display rows from the view
for employees with salaries at or above $20,000.  Format all output
appropriately.*/
SQL> /*Creating a view named vwSalary*/
SQL> COLUMN "EmpID" FORMAT A8;
SQL> COLUMN "EmpLastName" FORMAT A15;
SQL> COLUMN "EmpFirstName" FORMAT A15;
SQL> COLUMN "EmpSalary" FORMAT $999,999,999.99;
SQL> CREATE VIEW vwSalary
  2  (EmpID, EmpLastName, EmpFirstName, EmpSalary) AS
  3  SELECT EmployeeID, LastName, FirstName, Salary
  4  FROM Employee;

View created.

SQL>
SQL> /*accessing vwSalary*/
SQL> SELECT *
  2  FROM vwSalary
  3  WHERE EmpSalary>=20000;

EMPID    EMPLASTNAME     EMPFIRSTNAME           EMPSALARY
-------- --------------- --------------- ----------------
67555    Simmons         Lester                $22,000.00
88101    Becker          Robert                $23,545.00
88303    Jones           Quincey               $30,550.00
88404    Barlow          William               $27,500.00
88505    Smith           Susan                 $32,500.00
```

```
66425    Quattromani     Toni                  $22,325.00
88202    Becker          Roberta               $23,000.00

7 rows selected.

SQL>
SQL> /*Q.No.12)The Company's senior project manager needs to access
information about departments that manage projects for a specific set of
projects, namely those located in either Maryville or Edwardsville.
Create a view named vwDepartmentProjects that includes the
DepartmentNumber and DepartmentName columns from the department table and
the ProjectTitle and Location columns from the project table.  The view
should only reference rows for projects that are located in either
Maryville or Edwardsville. The columns in the view should be named
DeptNo, Department, Project, and Location, respectively.  Write a SELECT
statement to display all of the rows that are accessible through the
view.  Format the output columns of the SELECT statement as A25 for
Project and Department, and A15 for Location.*/
SQL> /*Creating a view named vwDepartmentProjects*/
SQL> COLUMN "Project" FORMAT A25;
SQL> COLUMN "Department" FORMAT A25;
SQL> COLUMN "Location" FORMAT A15;
SQL> CREATE VIEW vwDepartmentProjects
  2  (DeptNo, Department, Project, Location) AS
  3  SELECT d.DepartmentNumber, d.DepartmentName, p.ProjectTitle,
p.Location
  4  FROM Department d JOIN Project p ON
(d.DepartmentNumber=p.DepartmentNumber)
  5  WHERE Location IN ('Maryville', 'Edwardsville');

View created.

SQL>
SQL> /*accessing vwDepartmentProjects*/
SQL> SELECT *
  2  FROM  vwDepartmentProjects;

    DEPTNO DEPARTMENT                PROJECT                   LOCATION
---------- ------------------------- ------------------------- ----------
-----
         2 Radiology                 New MRI Installation      Maryville
         3 Emergency-Surgical        Add Crash Cart Equipment
Edwardsville
         3 Emergency-Surgical        Remodel ER Suite          Maryville
         8 Admin/Labs                Personnel Records Update  Maryville

SQL>
SQL> /*Q.No.13)Create a view named vwProjectHours that will be used by
the senior project manager to access information about work hours that
have been reported for different projects. The view should join the
project and projectAssignment tables.  The view should have two columns;
project title (not project number) and the average hours worked on each
project.  Name the columns Project and AverageHours in the view.  (Hint:
The rows in the view should be grouped by the project name).  Write a
```

```
SELECT statement against this view to display projects where the average
hours is equal to or greater than 15.  HINT: When creating the View you
have renamed the average hours to AverageHours.  This is the attribute
you will reference in the query against the view.*/
SQL> /*Creating a view named vwProjectHours*/
SQL> CREATE VIEW vwProjectHours
  2  ("Project", "AverageHours")AS
  3  SELECT ProjectTitle, Avg(Hoursworked)
  4  FROM ProjectAssignment pa JOIN Project p ON
(pa.ProjectNumber=p.ProjectNumber)
  5  GROUP BY ProjectTitle
  6  HAVING Avg(Hoursworked)>=15;

View created.

SQL>
SQL> /*accessing vwProjectHours*/
SQL> SELECT *
  2  FROM vwProjectHours;

Project                   AverageHours
------------------------- ------------
Personnel Records Update          28.7
Remodel ER Suite                17.275
New MRI Installation              17.6
Child Care Center                23.55

SQL>
SQL>
SQL> /*last line of question 13 is some confusing, write the select
statement against this view to display projects, by this if question
means just need the project names, this is code in that case*/
SQL> /*Before that let's drop old one*/
SQL> DROP VIEW vwProjectHours;

View dropped.

SQL> CREATE VIEW vwProjectHours
  2  (Project, AverageHours)AS
  3  SELECT ProjectTitle, Avg(Hoursworked)
  4  FROM ProjectAssignment pa JOIN Project p ON
(pa.ProjectNumber=p.ProjectNumber)
  5  GROUP BY ProjectTitle;

View created.

SQL>
SQL> /*accessing vwProjectHours*/
SQL> SELECT Project
  2  FROM vwProjectHours
  3  WHERE AverageHours >=15;

PROJECT
-------------------------
```

```
Personnel Records Update
Remodel ER Suite
New MRI Installation
Child Care Center

SQL>
SQL>
SQL> /*                                       THE END
*/
SQL> SPOOL OFF;
SQL> /*Sagar Kalauni*/
SQL> /* Lab8-Kalauni*/
SQL>
SQL> /*Q.NO.1)The ProjectAssignment table stores data about the hours
that employees are working on specific projects.  A senior project
manager needs a listing of employee names (first and last concatenated)
who have not worked on projects 1, 2, 7 or 8. Use a subquery approach and
sort the rows of the result table by employee last name.*/
SQL> COLUMN "Employee" FORMAT A20;
SQL> SELECT LastName||', '||FirstName "Employee"
  2  FROM Employee
  3  WHERE EmployeeID NOT IN ( SELECT EmployeeID
  4                             FROM ProjectAssignment
  5                                    WHERE ProjectNumber IN (1, 2, 7,
8))
  6  ORDER BY lastName;

Employee
--------------------
Barlow, William
Becker, Roberta
Becker, Robert
Bock, Douglas
Boudreaux, Beverly
Boudreaux, Betty
Clinton, William
Jones, Quincey
Klepper, Robert
Quattromani, Toni
Schultheis, Robert

Employee
--------------------
Simmons, Leslie
Smith, Susan
Smith, Alyssa
Sumner, Elizabeth
Thornton, Billy
Webber, Eugene
Young, Yvonne
Zumwalt, Mary

19 rows selected.

SQL>
SQL>
SQL> /*Q.NO.2)Management would like a report on all employees with a
salary GREATER than the MINIMUM salary of the employees in Department 3.
Use a subquery approach and include the employee first name, last name
(concatenated), department number, and salary.  Sort the rows by
departmentnumber. */
SQL> COLUMN "Employee" FORMAT A20;
SQL> COLUMN Salary FORMAT $99,999.99;
SQL> SELECT LastName||', '||FirstName "Employee", DepartmentNumber,
Salary
  2  FROM Employee
  3  WHERE Salary > (SELECT MIN(Salary)
  4                      FROM Employee
  5                         WHERE DepartmentNumber=3)
  6  ORDER BY DepartmentNumber;

Employee             DEPARTMENTNUMBER      SALARY
-------------------- ---------------- -----------
Bordoloi, Bijoy                     2  $17,850.00
Webber, Eugene                      2  $17,500.00
Jones, Quincey                      3  $30,550.00
Smith, Susan                        3  $32,500.00
Barlow, William                     3  $27,500.00
Becker, Robert                      3  $23,545.00
Quattromani, Toni                   5  $22,325.00
Becker, Roberta                     6  $23,000.00
Simmons, Lester                     8  $22,000.00
Boudreaux, Beverly                  8  $17,520.00
Schultheis, Robert                  9  $17,525.00

11 rows selected.

SQL>
SQL> /*Q.NO.3)Management is concerned that some employees are not putting
in sufficient work hours on assigned projects 1, 2, and 3.  List the
names of employees (last and first concatenated) for those employees who
worked on one of these three projects, but worked fewer hours than the
average number of hours worked on these three projects combined.  This is
a nested subquery. Order the report by last name.*/
SQL> COLUMN "Employee Name" FORMAT A20;
SQL> SELECT LastName||', '||FirstName "Employee Name"
  2  FROM Employee
  3  WHERE EmployeeID IN ( SELECT EmployeeID
  4                       FROM ProjectAssignment
  5                          WHERE ProjectNumber IN (1,2,3) AND
HoursWorked < (SELECT SUM(AVG(HoursWorked))
  6
FROM ProjectAssignment
  7
WHERE ProjectNumber IN (1,2,3)
  8
GROUP BY ProjectNumber))
  9  ORDER BY LastName;

Employee Name
--------------------
Bock, Douglas
Eakin, Maxwell
Klepper, Robert
Smith, Alyssa

SQL>
SQL> /*Q.NO.4)The previous report has piqued the project manager’s
curiosity. He would now like a report that lists all employees who have
worked fewer hours than the average for all projects combined.  Computer
the average hours worked on a project in a subquery.  In the report, list
the employee’s first and last name. */
SQL> COLUMN "Employee Name" FORMAT A20;
SQL> SELECT LastName||', '||FirstName "Employee Name"
  2  FROM Employee
  3  WHERE EmployeeID IN ( SELECT EmployeeID
  4                        FROM ProjectAssignment
  5                           WHERE HoursWorked < (SELECT
SUM(AVG(HoursWorked))
  6                                             FROM ProjectAssignment
  7                                             GROUP BY ProjectNumber));

Employee Name
--------------------
Simmons, Lester
Adams, Adam
Thornton, Billy
Eakin, Maxwell
Bock, Douglas
Bordoloi, Bijoy
Smith, Alyssa
Smith, Susan
Klepper, Robert
Brockwell, Mary Elle
n

Employee Name
--------------------


10 rows selected.

SQL>
SQL> /*Q.NO.5)The Chief Nurse would like a list of all room numbers that
have a bed with a description that has Surgical anywhere in the field and
are available.  The result field should list the room */
SQL> COLUMN "Room Number" FORMAT A12;
SQL> SELECT RoomNumber "Room Number"
  2  FROM Bed
  3  WHERE Availability='Y' AND BedType IN (SELECT BedType
  4                                           FROM BedClassification
  5                                                       WHERE
Description LIKE '%Surgical%');

Room Number
------------
MSN214
MSS001
MSS004
MSS006
SW3007
```

```
SW3005
SW3001
RE0032
MSS010
MSS012
MSS013

Room Number
------------
MSS014
MSS014
MSN202
MSN215
RE0023
CC1031
MSN205
CC1001
CC1011
MSN213
CC1031

Room Number
------------
RE0001
SW3006
SW3006
MSN211
RE0032
RE0032
CC1051
SW3003
MSN210
MSN212
RE0031

Room Number
------------
SW3008
SW3008
MSS015

36 rows selected.

SQL>
SQL> /*Q.NO.6)The project manager needs to know all available employees
who can work on a new project. He wants a report that lists the employee
last name, first name, and department name.  But, he only wants the
employees who are in the departments that are currently working on
projects 3 or 5. This query will require both a JOIN (in the outer query)
and a subquery.  */
SQL> COLUMN "Last Name"  FORMAT   A12;
SQL> COLUMN "First Name"  FORMAT   A15;
SQL> SELECT LastName "Last Name", FirstName "First Name",
d.DepartmentName "Department Name"
```

```
  2  FROM Employee e LEFT OUTER JOIN Department d ON
(e.DepartmentNumber=d.departmentnumber)
  3  WHERE d.DepartmentNumber IN (SELECT DepartmentNumber
  4                              FROM Project
  5                              WHERE ProjectNumber IN (3,5));

Last Name    First Name      Department Name
------------ --------------- -------------------------
Simmons      Lester          Admin/Labs
Boudreaux    Beverly         Admin/Labs
Adams        Adam            Admin/Labs
Thornton     Billy           Admin/Labs
Clinton      William         Admin/Labs
Webber       Eugene          Radiology
Bordoloi     Bijoy           Radiology
Smith        Alyssa          Radiology

8 rows selected.

SQL>
SQL> /*Q.NO.7)The head of Pediatrics would like a list of all current
patients in Pediatrics beds.  Pediatric beds will always have PED
somewhere in the roomnumber field.  The hospital may add more pediatric
beds in the future.  Create the list by using a subquery.  Format patient
names with one heading.*/
SQL> COLUMN "Patient Name" FORMAT A20;
SQL> SELECT LastName||', '||FirstName "Patient Name"
  2  FROM Patient
  3  WHERE Bedno IN (SELECT BedNumber
  4                  FROM Bed
  5                    WHERE RoomNumber LIKE '%PED%');

Patient Name
--------------------
Able, Andrew
Algebra, Albert
Beaufort, Bradley
Crawford, Clyde
Dunland, Danny
Ezzra, Ertha
Funk, Filbert
Greathouse, Gretchen

8 rows selected.

SQL>
SQL> /*Q.NO.8)Provide the treatment number, patientId, and employeeID of
all treatments with a service Category description of ‘Surgery’ and have
a standardCharge greater than $5,000.  This is a nested subquery.   Order
the report by treatment number. */
SQL> COLUMN "Patient ID" FORMAT A10;
SQL> COLUMN "Employee ID" FORMAT A12;
SQL> SELECT treatmentNumber "Treatment Number", PatientID "Patient ID",
EmployeeID "Employee ID"
```

```
  2  FROM Treatment
  3  WHERE ServiceID IN (SELECT ServiceID
  4                      FROM Service
  5                      Where StandardCharge>5000 AND CategoryID IN
(SELECT CategoryID
  6
FROM ServiceCategory
  7
                        WHERE Description LIKE '%Surgery%'))
  8  ORDER BY treatmentNumber;

Treatment Number Patient ID Employee ID
---------------- ---------- ------------
               3 100304     88101
               3 100424     88404
              10 100306     10044
              13 100500     88101
              14 222001     88202
              26 666121     88202

6 rows selected.

SQL>
SQL> /*Q.NO.9)The Hospital Chief has requested a list of employees whose
salary is less than all employee salaries in Department 2.  The result
should not include any employee who has a wagerate rather than a salary
(i.e. salary should not be null).  Use a subquery approach and the ALL
function.*/
SQL> COLUMN "Employee" FORMAT A20;
SQL> COLUMN Salary FORMAT $999,999.99;
SQL> SELECT LastName||', '||FirstName "Employee", Salary,
DepartmentNumber
  2  FROM employee
  3  WHERE salary < ALL (SELECT Salary
  4                      FROM employee
  5                      WHERE DepartmentNumber = 2 AND salary IS NOT
NULL);

Employee                   SALARY DEPARTMENTNUMBER
-------------------- ------------ ----------------
Simmons, Leslie         $2,200.00                6
Young, Yvonne           $2,200.00                6

SQL>
SQL>
SQL> /*                                       THE END
*/Spool off;
```

```
SQL> /*Sagar Kalauni*/
SQL> /* Lab9-Kalauni*/
SQL>
SQL> /*Solution for Q.Qn.1*/
SQL> -- Program: Q.No.-1.sql
SQL> -- Programmer: Sagar Kalauni
SQL> -- Description: Information about employee's Dependent
SQL>
SQL> TTITLE 'Dependent Information'
SQL> BTITLE SKIP 2 CENTER 'Not for external dissemination.'
SQL> SET LINESIZE 55
SQL> SET PAGESIZE 24
SQL> SET NWEPAGE 1
SP2-0158: unknown SET option "NWEPAGE"
SQL>
SQL> COLUMN "Emp ID" FORMAT A6;
SQL> COLUMN "Dependent" FORMAT A15;
SQL> COLUMN "Gender" FORMAT A6;
SQL> COLUMN "Date Birth" FORMAT A10;
SQL> COLUMN "Relationship" FORMAT A12;
SQL> SELECT EmployeeID "Emp ID", Name "Dependent", gender "Gender",
BirthDate "Date Birth", RelationshipToEmployee "Relationship"
  2  FROM Dependent
  3  ORDER BY EmployeeID;

Fri Oct 13                                    page    1
                 Dependent Information

Emp ID Dependent       Gender Date Birth Relationship
------ --------------- ------ ---------- ------------
01885  Deanna          F      31-DEC-09  DAUGHTER
01885  Jeffery         M      01-JAN-08  SON
01885  Mary Ellen      F      05-MAY-76  SPOUSE
01885  Michelle        F      17-MAR-04  DAUGHTER
01885  Rachael         F      04-OCT-15  DAUGHTER
23100  Anita           F      06-JUL-14  DAUGHTER
23100  Mita            F      04-JUN-76  SPOUSE
23100  Monica          F      30-DEC-16  DAUGHTER
23100  Rita            F      11-MAY-18  DAUGHTER
33355  Allen           M      29-FEB-88  SPOUSE
67555  Andrew          M      25-OCT-18  SON
67555  Jo Ellen        F      05-APR-16  DAUGHTER
67555  Susan           F      03-MAY-95  SPOUSE




            Not for external dissemination.

13 rows selected.

SQL> /*Solution for Q.Qn.2*/
SQL> -- Program: Q.No.-2.sql
SQL> -- Programmer: Sagar Kalauni
SQL> -- Description: Information about employee's Dependent
SQL>
SQL> TTITLE 'Dependent Information'
SQL> BTITLE SKIP 1 CENTER 'Not for external dissemination.'
SQL> SET LINESIZE 55
SQL> SET PAGESIZE 24
SQL> SET NWEPAGE 1
SP2-0158: unknown SET option "NWEPAGE"
SQL>
SQL> COLUMN "Emp ID" FORMAT A6;
SQL> COLUMN "Dependent" FORMAT A15;
SQL> COLUMN "Gender" FORMAT A6;
SQL> COLUMN "Date Birth" FORMAT A10;
SQL> COLUMN "Relationship" FORMAT A12;
SQL>
SQL> CLEAR BREAK
breaks cleared
SQL> BREAK ON "Emp ID" SKIP 2 ON REPORT
SQL> COMPUTE COUNT OF "Emp ID" ON REPORT
SQL>
SQL> SELECT EmployeeID "Emp ID", Name "Dependent", gender "Gender",
BirthDate "Date Birth", RelationshipToEmployee "Relationship"
  2  FROM Dependent
  3  ORDER BY EmployeeID;

Fri Oct 13                                    page    1
                 Dependent Information

Emp ID Dependent       Gender Date Birth Relationship
------ --------------- ------ ---------- ------------
01885  Deanna          F      31-DEC-09  DAUGHTER
       Jeffery         M      01-JAN-08  SON
       Mary Ellen      F      05-MAY-76  SPOUSE
       Michelle        F      17-MAR-04  DAUGHTER
       Rachael         F      04-OCT-15  DAUGHTER


23100  Anita           F      06-JUL-14  DAUGHTER
       Mita            F      04-JUN-76  SPOUSE
       Monica          F      30-DEC-16  DAUGHTER
       Rita            F      11-MAY-18  DAUGHTER


33355  Allen           M      29-FEB-88  SPOUSE



            Not for external dissemination.

Fri Oct 13                                    page    2
                 Dependent Information

Emp ID Dependent       Gender Date Birth Relationship
------ --------------- ------ ---------- ------------
```

```
67555  Andrew          M      25-OCT-18  SON
       Jo Ellen        F      05-APR-16  DAUGHTER
       Susan           F      03-MAY-95  SPOUSE


------
    13









            Not for external dissemination.

13 rows selected.

SQL>
SQL> /*Solution for Q.Qn.3*/
SQL> -- Program: Q.No.-3.sql
SQL> -- Programmer: Sagar Kalauni
SQL> -- Description: Information about employee's Dependent
SQL>
SQL> /*If done this way perfectly works for first table*/
SQL>
SQL> TTITLE CENTER 'Employee Name:' EmployeeNameVar -
>     RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
SQL> BTITLE SKIP 1 CENTER 'Not for external dissemination.'
SQL> SET LINESIZE 65
SQL> SET PAGESIZE 15
SQL> SET NEWPAGE 1
SQL>
SQL> -- Create a view to use in the Select command
SQL> CREATE OR REPLACE VIEW vwEmpDep ( Employee, "Emp ID", DependentName,
gender, Relationship) AS
  2  SELECT e.Lastname||', '||e.Firstname, d.EmployeeID, d.Name,
d.gender, d.RelationshipToEmployee
  3  FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
  4  ORDER BY -DependentName;
ORDER BY -DependentName
          *
ERROR at line 4:
ORA-00904: "DEPENDENTNAME": invalid identifier


SQL>
SQL> COLUMN Employee NEW_VALUE EmployeeNameVar NOPRINT
SQL> COLUMN "Emp ID" FORMAT A20
SQL> COLUMN DependentName FORMAT A15
SQL> COLUMN gender FORMAT A6
SQL> COLUMN Relationship FORMAT A12
SQL>
SQL> BREAK ON Employee ON "Emp ID" PAGE;
SQL> COMPUTE COUNT LABEL "Number of Dependents" OF Relationship ON "Emp
ID"
SQL>
SQL> SELECT Employee, "Emp ID", DependentName, gender, Relationship
  2  FROM vwEmpDep
  3  ORDER BY "Emp ID" , relationship desc;

                   Employee Name:Bock, Douglas          Page:   1

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
01885                Mary Ellen      F      SPOUSE
                     Jeffery         M      SON
                     Rachael         F      DAUGHTER
                     Michelle        F      DAUGHTER
                     Deanna          F      DAUGHTER
********************                        ------------
Number of Dependents                                   5


                 Not for external dissemination.

                  Employee Name:Bordoloi, Bijoy         Page:   2

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
23100                Mita            F      SPOUSE
                     Rita            F      DAUGHTER
                     Monica          F      DAUGHTER
                     Anita           F      DAUGHTER
********************                        ------------
Number of Dependents                                   4



                 Not for external dissemination.

                 Employee Name:Boudreaux, Beverly       Page:   3

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
33355                Allen           M      SPOUSE
********************                        ------------
Number of Dependents                                   1






                 Not for external dissemination.
```

```
                  Employee Name:Simmons, Lester         Page:   4

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
67555                Susan           F      SPOUSE
                     Andrew          M      SON
                     Jo Ellen        F      DAUGHTER
********************                        ------------
Number of Dependents                                   3




                 Not for external dissemination.

13 rows selected.

SQL>
SQL> /*If done this way perfectly works for last table*/
SQL>
SQL> TTITLE CENTER 'Employee Name:' EmployeeNameVar -
>      RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
SQL> BTITLE SKIP 1 CENTER 'Not for external dissemination.'
SQL> SET LINESIZE 65
SQL> SET PAGESIZE 15
SQL> SET NEWPAGE 1
SQL>
SQL> -- Create a view to use in the Select command
SQL> CREATE OR REPLACE VIEW vwEmpDep ( Employee, "Emp ID", DependentName,
gender, Relationship) AS
  2  SELECT e.Lastname||', '||e.Firstname, d.EmployeeID, d.Name,
d.gender, d.RelationshipToEmployee
  3  FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
  4  ORDER BY -DependentName;
ORDER BY -DependentName
          *
ERROR at line 4:
ORA-00904: "DEPENDENTNAME": invalid identifier


SQL>
SQL> COLUMN Employee NEW_VALUE EmployeeNameVar NOPRINT
SQL> COLUMN "Emp ID" FORMAT A20
SQL> COLUMN DependentName FORMAT A15
SQL> COLUMN gender FORMAT A6
SQL> COLUMN Relationship FORMAT A12
SQL>
SQL> BREAK ON Employee ON "Emp ID" PAGE;
SQL> COMPUTE COUNT LABEL "Number of Dependents" OF Relationship ON "Emp
ID"
SQL>
SQL> SELECT Employee, "Emp ID", DependentName, gender, Relationship
  2  FROM vwEmpDep
  3  ORDER BY "Emp ID" , relationship;

                   Employee Name:Bock, Douglas          Page:   1

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
01885                Rachael         F      DAUGHTER
                     Michelle        F      DAUGHTER
                     Deanna          F      DAUGHTER
                     Jeffery         M      SON
                     Mary Ellen      F      SPOUSE
********************                        ------------
Number of Dependents                                   5


                 Not for external dissemination.

                  Employee Name:Bordoloi, Bijoy         Page:   2

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
23100                Rita            F      DAUGHTER
                     Monica          F      DAUGHTER
                     Anita           F      DAUGHTER
                     Mita            F      SPOUSE
********************                        ------------
Number of Dependents                                   4



                 Not for external dissemination.

                 Employee Name:Boudreaux, Beverly       Page:   3

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
33355                Allen           M      SPOUSE
********************                        ------------
Number of Dependents                                   1






                 Not for external dissemination.

                  Employee Name:Simmons, Lester         Page:   4

Emp ID               DEPENDENTNAME   GENDER RELATIONSHIP
-------------------- --------------- ------ ------------
67555                Jo Ellen        F      DAUGHTER
                     Andrew          M      SON
                     Susan           F      SPOUSE
```

```
********************                        ------------
Number of Dependents                                   3



                 Not for external dissemination.

13 rows selected.

SQL>
SQL> /*I spent a lot of time for this question, I don't find a way to
exectly shows ordering, But I think ordering does not matter here,
because we do not have complete report photo in question*/
SQL>
SQL> spool off;
SQL> /*Sagar Kalauni*/
SQL> /* Lab10-Kalauni*/
SQL>
SQL> /*Q.No.1)Management requires a listing of employees by last name,
first name, and middle initial for department number 8.  The last name
should be displayed in all capital letters.  The entire name should be
concatenated together so as to display in a single field with a column
heading of "Employee Name."  The rows should be sorted by employee last
name, then employee first name. */
SQL> COLUMN "Employee Name" FORMAT A22;
SQL> SELECT FirstName ||' '||  SUBSTR(MiddleName, 1,1) ||' '||
UPPER(LastName)  "Employee Name"
  2  FROM Employee
  3  WHERE DepartmentNumber=8
  4  ORDER BY LastName, FirstName;

Employee Name
----------------------
Adam A ADAMS
Beverly B BOUDREAUX
William W CLINTON
Lester L SIMMONS
Billy B THORNTON

SQL>
SQL> /*Q.No.2)Write a query that displays the department name and the
length in number of characters of each department's name.  Use the
department table.  Label the column headings appropriately*/
SQL> COLUMN "Dept. Name" FORMAT A26;
SQL> COLUMN "Length" FORMAT 999999;
SQL> SELECT DepartmentName "Dept. Name", LENGTH(DepartmentName) "Length"
  2  FROM Department;

Dept. Name                  Length
-------------------------- -------
Medical Surgical Ward 1         23
Radiology                        9
Emergency-Surgical              18
Oncology Ward                   13
Critical Care-Cardiology        24
Pediatrics-Gynecology           21
Pharmacy Department             19
Admin/Labs                      10
OutPatient Clinic               17

9 rows selected.

SQL>
SQL> /*Q.No.3)Management wants a listing of department numbers and names
(use the department table)—display the output as a single column with the
heading "Department Information" - convert the DepartmentNumber column to
character data as part of the query. */
SQL> COLUMN "Department Information" FORMAT A32;
SQL> SELECT To_CHAR(DepartmentNumber, '999')||'  '|| DepartmentName
"Department Information"
  2  FROM Department;

Department Information
--------------------------------
   1  Medical Surgical Ward 1
   2  Radiology
   3  Emergency-Surgical
   4  Oncology Ward
   5  Critical Care-Cardiology
   6  Pediatrics-Gynecology
   7  Pharmacy Department
   8  Admin/Labs
   9  OutPatient Clinic

9 rows selected.

SQL>
SQL> /*Q.No.4)Write a query that displays the first four characters of
each employee's last name and the last four digits of each employee's SSN
for department 8.  Label the column headings "Name" and "SSN."  Order the
result table rows by employee last name. */
SQL> COLUMN "Name" FORMAT A5;
SQL> COLUMN "SSN" FORMAT A5;
SQL> SELECT SUBSTR(LastName, 1,4) "Name", SUBSTR(SSN,6) "SSN"
  2  FROM Employee
  3  WHERE DepartmentNumber=8
  4  ORDER BY LastName;

Name  SSN
----- -----
Adam  3287
Boud  6222
Clin  0233
Simm  9642
Thor  6129

SQL>
SQL> /*Q.No.5)Write a query that displays all employee names as well as
their work phone.  Format their workphone to 999-999-9999.*/
SQL> COLUMN "Employee Name" FORMAT A25;
SQL> COLUMN "Phone No." FORMAT A18;
SQL> SELECT LastName ||','|| FirstName "Employee Name",
SUBSTR(WorkPhone,1,3)||'-'||SUBSTR(WorkPhone,4,3)||'-
'||SUBSTR(WorkPhone,7,4) "Phone No."
  2  FROM Employee;

Employee Name             Phone No.
------------------------- ------------------
Simmons,Lester            100-555-9401
Boudreaux,Beverly         100-555-8287
Adams,Adam                100-555-8287
Thornton,Billy            100-555-8287
```

```
Clinton,William           100-555-8287
Eakin,Maxwell             100-555-9268
Bock,Douglas              100-555-9268
Webber,Eugene             100-555-9270
Bordoloi,Bijoy            100-555-9270
Smith,Alyssa              100-555-9267
Sumner,Elizabeth          100-555-9271

Employee Name             Phone No.
------------------------- ------------------
Becker,Robert             100-555-9284
Jones,Quincey             100-555-9284
Barlow,William            100-555-9284
Smith,Susan               100-555-9284
Klepper,Robert            100-555-9268
Zumwalt,Mary              100-555-9401
Quattromani,Toni          100-555-9280
Becker,Roberta            100-555-9284
Brockwell,Mary Ellen      100-555-9401
Simmons,Leslie            100-555-9401
Young,Yvonne              100-555-9401

Employee Name             Phone No.
------------------------- ------------------
Boudreaux,Betty           100-555-8287
Schultheis,Robert         100-555-9284

24 rows selected.

SQL>
SQL> /*Q.No.6)Write a query to display a listing of employee last names
and the EmployeeID of each employee's supervisor for the employees
working in department 8.  If the employee has no supervisor, display the
message "Top Supervisor."  Provide appropriate headings.  Sort the result
table by employee last name. */
SQL> COLUMN "Emp Last Name" FORMAT A14;
SQL> COLUMN "EmployeeID" FORMAT A18;
SQL> SELECT LastName "Emp Last Name", DECODE(SupervisorID, NULL, 'Top
Supervisor' , EmployeeID) "EmployeeID"
  2  FROM Employee
  3  WHERE DepartmentNumber=8
  4  ORDER BY LastName;

Emp Last Name  EmployeeID
-------------- ------------------
Adams          33344
Boudreaux      33355
Clinton        33359
Simmons        Top Supervisor
Thornton       33358

SQL>
SQL> /*If there was typo in the question for supervisorid*/
SQL> COLUMN "Emp Last Name" FORMAT A14;
SQL> COLUMN "SupervisorID" FORMAT A18;
SQL> SELECT LastName "Emp Last Name", NVL(SupervisorID, 'Top Supervisor')
"SupervisorID"
  2  FROM Employee
  3  WHERE DepartmentNumber=8
  4  ORDER BY LastName;

Emp Last Name  SupervisorID
-------------- ------------------
Adams          33355
Boudreaux      67555
Clinton        33355
Simmons        Top Supervisor
Thornton       33355

SQL>
SQL> /*Q.No.7Develop a listing for the company's senior project manager
that lists employees that reported working between 15 and 25 hours
(inclusive) on assigned projects.  List the employee last name, project
number, and hours worked.  Use the ABS function.  Do NOT use the BETWEEN
operator or any logical operator.  Join the tables by use of the FROM
clause.  Use meaningful column headings.  Sort the rows of the result
table by employee last name.  HINT:  20 is the midpoint between 15 and 25
hours, the absolute value of the difference would be 5 hours. */
SQL> COLUMN "Emp Last Name" FORMAT A14;
SQL> COLUMN "Project No." FORMAT 99;
SQL> COLUMN "Hours worked" FORMAT 99.9;
SQL> SELECT LastName "Emp Last Name", ProjectNumber "Project No.",
HoursWorked "Hours worked"
  2  FROM Employee e JOIN ProjectAssignment pa ON
(e.employeeId=pa.employeeId)
  3  WHERE ABS(HoursWorked -20) <=5
  4  ORDER By LastName;

Emp Last Name  Project No. Hours worked
-------------- ----------- ------------
Adams                    8         23.0
Klepper                  4         19.2
Simmons                  8         24.1

SQL>
SQL> /*Q.No.8)The senior project manager needs a listing by employee last
name, project number, and hours worked (HoursWorked column) rounded to
the nearest integer value for projects 3 and 8.   Join the tables by use
of the FROM clause.  Sort the result table by employee last name within
project number.  Use meaningful column names. */
SQL> COLUMN "Emp Last Name" FORMAT A14;
SQL> COLUMN "Project No." FORMAT 99;
SQL> SELECT LastName "Emp Last Name", ProjectNumber "Project No.",
ROUND(HoursWorked,0)
  2  FROM Employee e JOIN ProjectAssignment pa ON
(e.employeeId=pa.employeeId)
  3  WHERE ProjectNumber IN (3,8)
  4  ORDER BY ProjectNumber, LastName;
```

```
Emp Last Name  Project No. ROUND(HOURSWORKED,0)
-------------- ----------- --------------------
Bock                     3                   10
Klepper                  3                   12
Smith                    3                   31
Adams                    8                   23
Eakin                    8
Simmons                  8                   24

6 rows selected.

SQL>
SQL> /*Q.No.9)Write a query to display information about female
dependents for the human resources manager.  Display each dependent's
name, gender, and date of birth.  The date of birth should be displayed
as:  Month Name (spelled out), two-digit day, and four-digit year (e.g.,
December 05, 1970).  Use the COLUMN commands shown here to format the
first two columns of output. */
SQL> COLUMN "Gender" Format A6;
SQL> COLUMN "Dep Name" FORMAT A15;
SQL> SELECT Name "Dep Name", Gender "Gender", TO_CHAR(BirthDate, 'Month
DD, YYYY') "Date of Birth"
  2  FROM Dependent
  3  WHERE Gender= 'F';

Dep Name        Gender Date of Birth
--------------- ------ ---------------------------------------------
Jo Ellen        F      April     05, 2016
Susan           F      May       03, 1995
Deanna          F      December  31, 2009
Rachael         F      October   04, 2015
Michelle        F      March     17, 2004
Mary Ellen      F      May       05, 1976
Mita            F      June      04, 1976
Anita           F      July      06, 2014
Monica          F      December  30, 2016
Rita            F      May       11, 2018

10 rows selected.

SQL>
SQL> /*Q.No.10)Write a query to display each dependent's name, date of
birth, and date on which the dependent turned or will turn 65 years of
age, but only for dependents born after January 1, 1980.  Use meaningful
column names.  Display each date using the DD-MON-YYYY format.  Use the
ADD_MONTHS, TO_CHAR, and TO_DATE functions.  Hint: 65 years equals 780
months. */
SQL> SELECT Name "Dep Name", TO_CHAR(BirthDate, 'DD-MON-YYYY') "Date of
Birth", TO_CHAR(ADD_MONTHS(BirthDate, 780), 'DD-MON-YYYY') "65th
Birthday"
  2  FROM Dependent
  3  WHERE BirthDate > TO_DATE('01-JAN-1980', 'DD-MON-YYYY');
```

```
Dep Name        Date of Birth        65th Birthday
--------------- -------------------- --------------------
Jo Ellen        05-APR-2016          05-APR-2081
Andrew          25-OCT-2018          25-OCT-2083
Susan           03-MAY-1995          03-MAY-2060
Allen           29-FEB-1988          28-FEB-2053
Jeffery         01-JAN-2008          01-JAN-2073
Deanna          31-DEC-2009          31-DEC-2074
Rachael         04-OCT-2015          04-OCT-2080
Michelle        17-MAR-2004          17-MAR-2069
Anita           06-JUL-2014          06-JUL-2079
Monica          30-DEC-2016          30-DEC-2081
Rita            11-MAY-2018          11-MAY-2083

11 rows selected.

SQL>
SQL> /*Q.No.11)Write a short query to display the current day of the week
spelled out, for example Monday or Wednesday.  The value should be
obtained from the operating system internal date.*/
SQL> SELECT TO_CHAR(SYSDATE, 'DAY') "Current Day"
  2  FROM Dual;

Current Day
------------------------------------
TUESDAY

SQL>
SQL> /*Q.No.12)The human resources manager needs a listing of dependents
including their name and gender, but only for dependents that are
spouses.  Instead of displaying the coded values for gender, the result
table must display the terms "Male" and "Female," as appropriate.  Use
meaningful column headings.  Sort the result table by dependent name. */
SQL> SELECT Name "Dep Name", DECODE(Gender, 'M', 'Male', 'Female')
"Gender"
  2  FROM Dependent
  3  WHERE RelationshipToEmployee= 'SPOUSE'
  4  ORDER BY Name;

Dep Name        Gender
--------------- ------
Allen           Male
Mary Ellen      Female
Mita            Female
Susan           Female

SQL>
SQL> /*Q.No.13)Write a query to display a listing of employee last names,
title, and salary for employees with a title of either 'Building
Custodian' or 'L.P.N.'.  If the employee is paid a wage, the salary will
be NULL.  In this situation, display the value $0.00.  Provide
appropriate headings.  Sort the result table by staff member last name.
*/
```

```
SQL> COLUMN "Salary" FORMAT $999,990.99;  --by giving tailing term as
zero
SP2-0246: Illegal FORMAT string "$999,990.99;"
SQL> COLUMN "Emp Last Name" FORMAT A15;
SQL> SELECT LastName "Emp Last Name", Title, NVL(Salary, '0.00') "Salary"
  2  FROM Employee
  3  WHERE Title LIKE '%Building Custodian%' OR Title LIKE '%L.P.N%'
  4  ORDER BY LastName;

Emp Last Name   TITLE                     Salary
--------------- -------------------- -----------
Clinton         Building Custodian          $.00
Simmons         L.P.N.                 $2,200.00
Thornton        Building Custodian          $.00
Young           L.P.N.                 $2,200.00

SQL>
SQL>
SQL> /*This Can be done alternatively by this way */
SQL> COLUMN "Emp Last Name" FORMAT A15;
SQL> COLUMN "Salary" FORMAT $99,999.99;
SQL> COLUMN "Title" FORMAT A20;
SQL> SELECT LastName "Emp Last Name", Title "Title",
DECODE(TO_CHAR(Salary, '$9,999'), NULL, ' $0.00', TO_CHAR(Salary,
'$9,999.99')) "Salary"
  2  FROM Employee
  3  WHERE Title LIKE '%Building Custodian%' OR Title LIKE '%L.P.N%'
  4  ORDER BY LastName;

Emp Last Name   Title                Salary
--------------- -------------------- ----------
Clinton         Building Custodian    $0.00
Simmons         L.P.N.                $2,200.00
Thornton        Building Custodian    $0.00
Young           L.P.N.                $2,200.00

SQL>
SQL> /*Q.No.14)Write a query to compare treatment charges to standard
service charges.  Display the ServiceID and StandardCharge columns from
the service table, and the ChargeAmount column from the treatment table.
Only display the value if the difference between the service and actual
charge is more than $50.00 in difference (either high or low).  Also
display a computed column that is the difference between the service and
actual charge (as a positive number).  Use appropriate column sizes and
headings.  Join the tables by use of the FROM clause.  */
SQL> COLUMN "Service ID"FORMAT A12;
SQL> COLUMN "Service Charge" FORMAT $999,999.99;
SQL> COLUMN "Treatment Charge" FORMAT $99,999.99;
SQL> COLUMN "Difference" FORMAT $999,999.99;
SQL> SELECT s.ServiceID "Service ID", s.StandardCharge "Service Charge",
t.ChargeAmount "Treatment Charge", ABS(StandardCharge - ChargeAmount)
"Difference"
  2  FROM Service s JOIN Treatment t ON (s.serviceID=t.serviceID)
  3  WHERE ABS(s.StandardCharge - t.ChargeAmount)> 50;
```

```
Service ID   Service Charge Treatment Charge   Difference
------------ -------------- ---------------- ------------
12001             $6,200.00          $450.00    $5,750.00
12007            $10,000.00        $8,500.00    $1,500.00
12010             $3,500.00        $1,480.00    $2,020.00
99058               $155.00          $435.00      $280.00

SQL>
SQL> /*Q.No.15)Modify the query for question 14 to display any rows where
there is any difference between the service and actual charge, but only
where the actual charge is less than the service charge.  Order the
output by differences from largest to smallest.*/
SQL> COLUMN "Service ID"FORMAT A12;
SQL> COLUMN "Service Charge" FORMAT $999,999.99;
SQL> COLUMN "Actual Charge" FORMAT $999,999.99;
SQL> COLUMN "Difference" FORMAT $999,999.99;
SQL> SELECT s.ServiceID "Service ID", s.StandardCharge "Service Charge",
t.ChargeAmount "Actual Charge", ABS(StandardCharge - ChargeAmount)
"Difference"
  2  FROM Service s JOIN Treatment t ON (s.serviceID=t.serviceID)
  3  WHERE ChargeAmount<StandardCharge
  4  ORDER BY ABS(StandardCharge - ChargeAmount) DESC;

Service ID   Service Charge Actual Charge   Difference
------------ -------------- ------------- ------------
12001             $6,200.00       $450.00    $5,750.00
12010             $3,500.00     $1,480.00    $2,020.00
12007            $10,000.00     $8,500.00    $1,500.00
99203                $95.00        $75.00       $20.00
99203                $95.00        $75.00       $20.00
99058               $155.00       $150.00        $5.00
90782                $75.00        $70.00        $5.00

7 rows selected.

SQL>
SQL> /*                                       THE END
*/
SQL> SPOOL OFF;
```