DBMS LAB ASSIGNMENT-4

Group No: 5

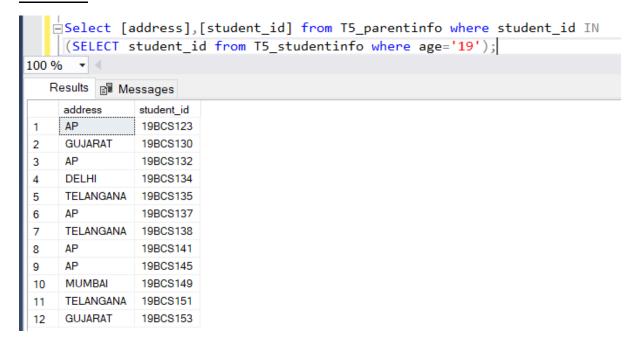
1)

Write 5 Nested Queries for your respective database- the queries should not be very similar like just changing the where clause or just building all the queries on only one or two tables etc. The queries should make sense, it should cover most part of your database tables.

QUERY1)

```
Select [address],[student_id] from T5_parentinfo where student_id IN (SELECT student_id from T5_studentinfo where age='19');
```

OUTPUT:



QUERY2)

```
Select * from T5_staff where teacher_id IN (Select teacher_id from T5_course_staff where student_id IN (select student_id from T5_courses where course_id='CS201' or course_id='CS210'));
```

```
□Select * from T5_staff where teacher_id IN
     (Select teacher_id from T5_course_staff where student_id IN
     (select student_id from T5_courses where course_id='CS201' or course_id='CS210'));
100 % ▼ <
teacher_id teacher_name salary teacher_email_id teacher_ph_no
                    35000 ram@iiitdwd.ac.in
    CS01 RAM
                                              1237849322
   CS02
             ARJUN
                        40000 arjun@iiitdwd.ac.in
                                              1245784209
   CS03
             BHUVAN RAJ 35000 bhuvan@iiitdwd.ac.in 9065438892
  CS04
             CAMELLA
                       35000 camella@iiitdwd.ac.in 6737849322
             NIVEDITHA
  CS05
                        45000 niveditha@iiitdwd.ac.in 1237890322
   CS10
             PRANAY
                       35000 pranay@iiitdwd.ac.in 9980849322
```

QUERY3)

Select student_id,parent_mobile_no from T5_parentinfo where student_id NOT IN (Select student_id from T5_courses where course_id IN (select course_id from T5_course_staff where grade='c' or grade='B-'));

OUTPUT:

```
Select student_id,parent_mobile_no from T5_parentinfo where student_id NOT IN
     (Select student_id from T5_courses where course_id IN
    (select course_id from T5_course_staff where grade='c' or grade='B-'));
100 % ▼ 4
student_id parent_mobile_no
    19BCS131 8899007762
    19BCS133 8899007756
2
    19BCS136 8899007758
    19BCS137 9870932235
    19BCS138 9086235637
5
    19BCS141 8899007235
6
    19BCS146 8899080766
7
8
    19BCS147 2509875466
9
    19BCS148 8891107766
    19BCS152 9950453218
10
    19BCS153 8796530021
11
```

QUERY4)

```
Select teacher_name, teacher_id from T5_staff where NOT EXISTS
( select * from T5_course_staff where
  T5_staff.teacher_id=T5_course_staff.teacher_id);
```

```
Select teacher_name, teacher_id from T5_staff where NOT EXISTS
    ( select * from T5_course_staff where T5_staff.teacher_id=T5_course_staff.teacher_id);
100 % ▼ <
teacher_name
                  teacher_id
    THOMAS
                  CS06
     JACK
                  CS07
2
     KARAN
                  CS08
3
4
     KIRAN
                  CS09
5
     SAHEEBA
                  FC01
    PREETHI RAJ
                  EC02
6
     BHUVI
                  EC03
8
    ANANYA
                  EC04
     MADHU
                  EC05
10 LALITH PANDEY EC06
    THANUJA
                  EC07
    JAGADISH RAM
                  EC10
12
     PRAKASH SINGH ECO8
13
14
    GEETHA
                  ECO9
```

QUERY5)

```
Select student_id,first_name,last_name from T5_studentinfo where student_id IN (Select student_id from T5_course_staff where EXISTS (select * from T5_courses where T5_course_staff.course_id=T5_courses.course_id));
```

OUTPUT:

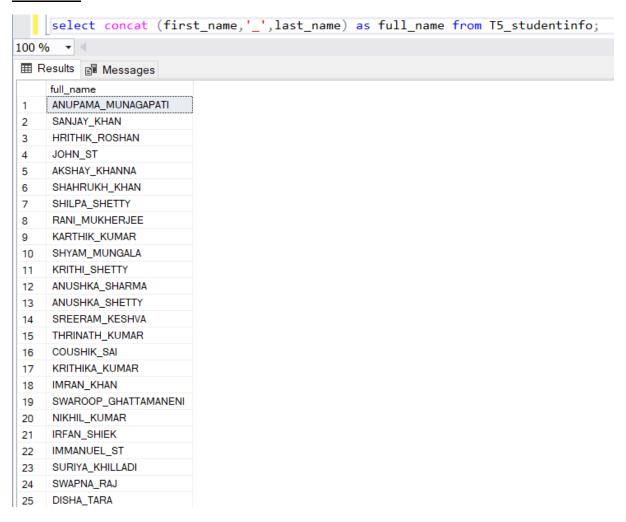
```
Select student_id,first_name,last_name from T5_studentinfo where student_id IN
     (Select student_id from T5_course_staff where EXISTS
    ( select * from T5_courses where T5_course_staff.course_id=T5_courses.course_id));
100 % ▼ 4
student_id first_name
                       last name
    19BCS123 ANUPAMA
                       MUNAGAPATI
2
     19BCS130 SANJAY
                       KHAN
    19BCS132 JOHN
                       ST
3
    19BCS133 AKSHAY
                       KHANNA
4
    19BCS134 SHAHRUKH
5
                       KHAN
    19BCS135 SHILPA
                       SHETTY
     19BCS138 SHYAM
7
                       MUNGALA
     19BCS139 KRITHI
                       SHETTY
8
     19BCS140 ANUSHKA
                       SHARMA
9
     19BCS141 ANUSHKA
10
                       SHETTY
     19BCS142 SREERAM
                       KESHVA
11
    19BCS143 THRINATH
                       KUMAR
12
    19BCS144 COUSHIK
                       SAI
13
14
    19BCS145 KRITHIKA
                       KUMAR
```

2) Illustrate how we can use Concat and As operators in SQL (minimum 3 queries)

QUERY1)

select concat (first_name,'_',last_name) as full_name from T5_studentinfo;

OUTPUT:

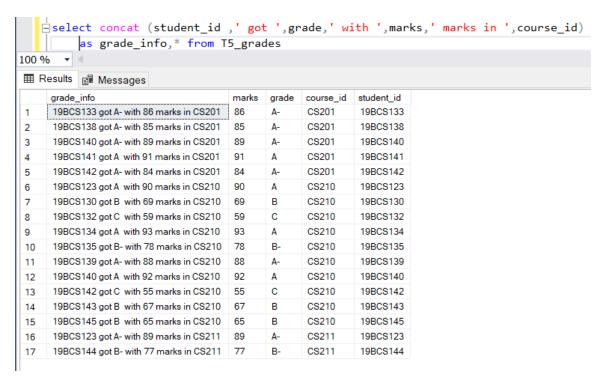


QUERY2)

```
select concat (teacher_id,'_',teacher_name,'(ph:',teacher_ph_no,')')
    as teacher_contact_details,salary,teacher_email_id from T5_staff
```

```
select concat (teacher_id,'_',teacher_name,'(ph:',teacher_ph_no,')')
            as teacher_contact_details,salary,teacher_email_id from T5_staff
100 %
teacher_contact_details
                                           salary
                                                   teacher_email_id
      CS01_RAM(ph:1237849322)
                                           35000
                                                   ram@iiitdwd.ac.in
      CS02_ARJUN(ph:1245784209)
                                           40000
                                                   arjun@iiitdwd.ac.in
 2
      CS03_BHUVAN RAJ(ph:9065438892)
 3
                                           35000
                                                   bhuvan@iiitdwd.ac.in
 4
      CS04_CAMELLA(ph:6737849322)
                                           35000
                                                   camella@iiitdwd.ac.in
      CS05_NIVEDITHA(ph:1237890322)
                                           45000
                                                   niveditha@iiitdwd.ac.in
 5
 6
      CS06_THOMAS(ph:1237509322)
                                           40000
                                                   thomas@iiitdwd.ac.in
 7
      CS07_JACK(ph:1237222322)
                                           35000
                                                   jack@iiitdwd.ac.in
      CS08_KARAN(ph:5677849322)
                                           35000
                                                   karan@iiitdwd.ac.in
 8
      CS09_KIRAN(ph:1099849322)
                                           50000
                                                   kiran@iiitdwd.ac.in
 9
      CS10_PRANAY(ph:9980849322)
                                           35000
                                                   pranay@iiitdwd.ac.in
 10
 11
      EC01_SAHEEBA(ph:9887849322)
                                           35000
                                                   saheeba@iiitdwd.ac.in
      EC02_PREETHI RAJ(ph:1249849322)
                                           30000
                                                   preethiR@iiitdwd.ac.in
 12
      EC03_BHUVI(ph:1098849322)
                                           35000
                                                   bhuvi@iiitdwd.ac.in
 13
 14
      EC04_ANANYA(ph:1210949322)
                                           45000
                                                   ananya@iiitdwd.ac.in
      EC05_MADHU(ph:1237109322)
                                           35000
                                                   madhu@iiitdwd.ac.in
 15
      EC06_LALITH PANDEY(ph:3867849322)
 16
                                           35000
                                                   lalith@iiitdwd.ac.in
      EC07_THANUJA(ph:1231234322)
                                           40000
                                                   thanuja@iiitdwd.ac.in
 17
      EC10_JAGADISH RAM(ph:1230045322)
                                           35000
                                                   jagadish@iiitdwd.ac.in
 18
      ECO8_PRAKASH SINGH(ph:9437849322)
 19
                                           45000
                                                   prakash@iiitdwd.ac.in
 20
      ECO9_GEETHA(ph:1367849322)
                                           30000
                                                   geetha@iiitdwd.ac.in
```

QUERY3)



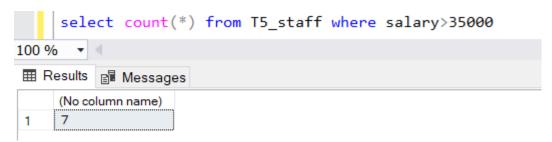
3)Illustrate all the Comparison operator.

FOR '>':

QUERY1)

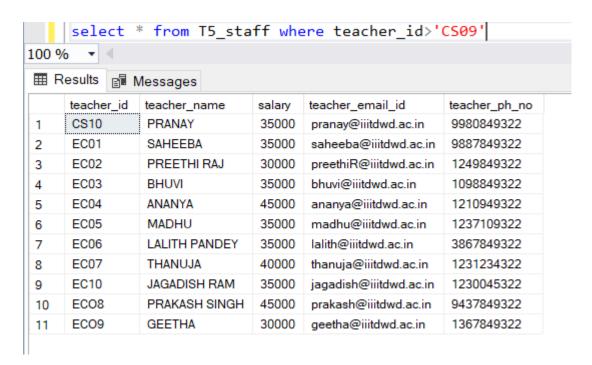
select count(*) from T5_staff where salary>35000

OUTPUT:



QUERY2)

select * from T5_staff where teacher_id>'CS09'

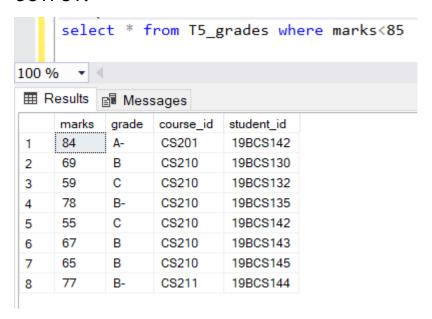


FOR '<':

QUERY1)

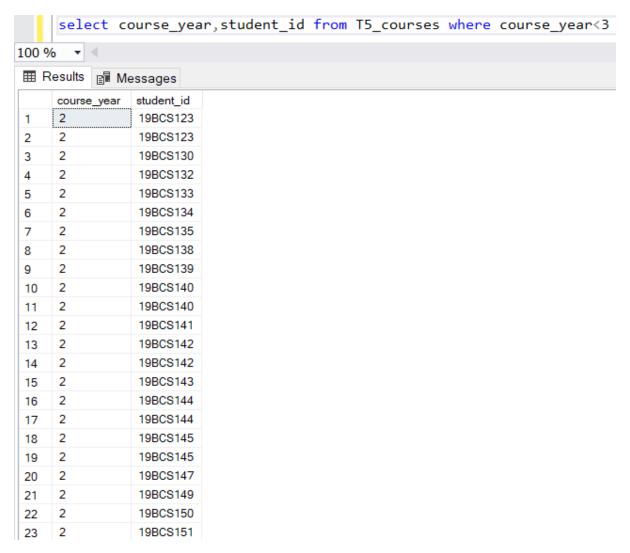
select * from T5_grades where marks<85

OUTPUT:



QUERY2)

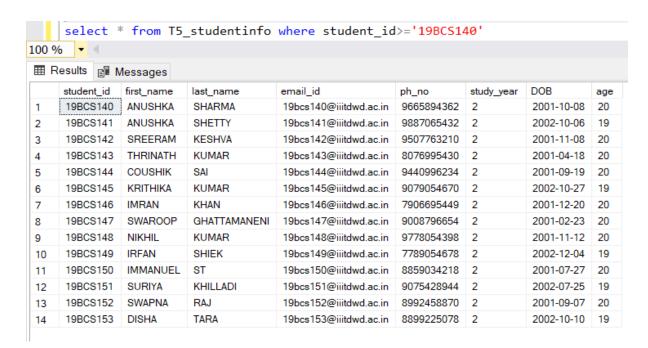
select course_year,student_id from T5_courses where course_year<3</pre>



FOR '>=':

QUERY1)

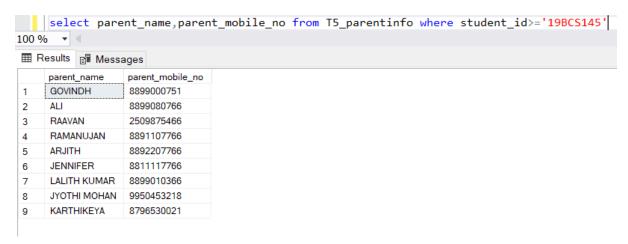
select * from T5_studentinfo where student_id>='19BCS140'



QUERY2)

select parent_name,parent_mobile_no from T5_parentinfo where student_id>='19BCS145'

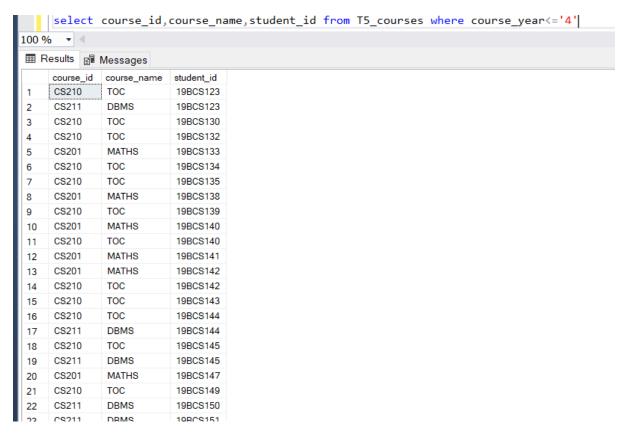
OUTPUT:



FOR '<=':

QUERY1)

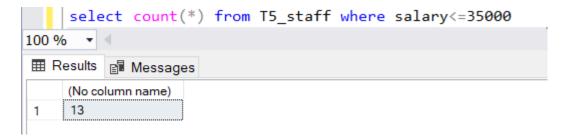
select course_id,course_name,student_id from T5_courses where course_year<='4'</pre>



QUERY2)

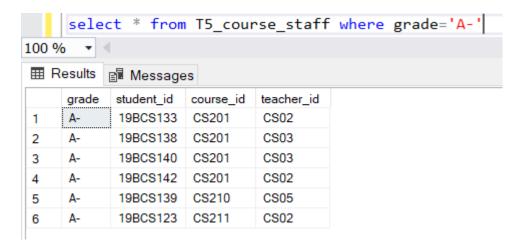
```
select count(*) from T5_staff where salary<=35000</pre>
```

OUTPUT:



QUERY1)

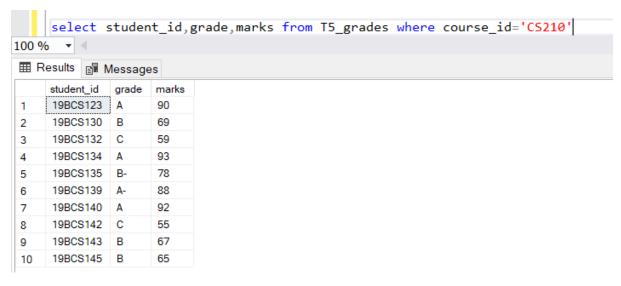
```
select * from T5_course_staff where grade='A-'
```



QUERY2)

select student_id,grade,marks from T5_grades where course_id='CS210'

OUTPUT:



FOR '<>':

QUERY1)

select count(*) from T5_courses where course_name<>'MATHS'

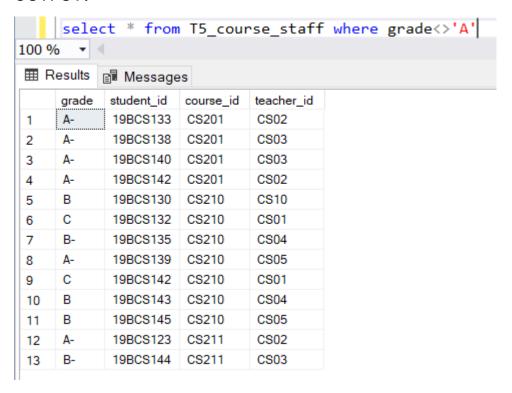
OUTPUT:



QUERY2)

select * from T5_course_staff where grade<>'A'

OUTPUT:

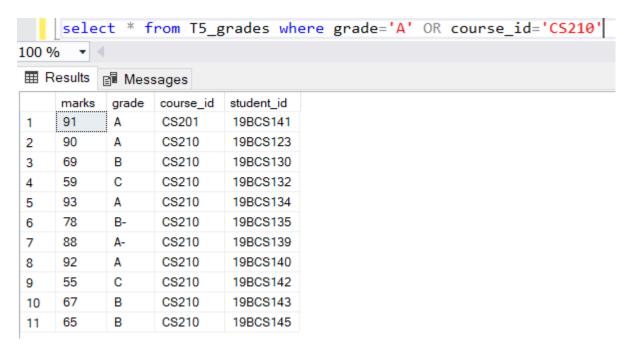


4) Illustrate Logical operators except ANY, ALL and Like (2 queries for each operator)

QUERIES:

i)

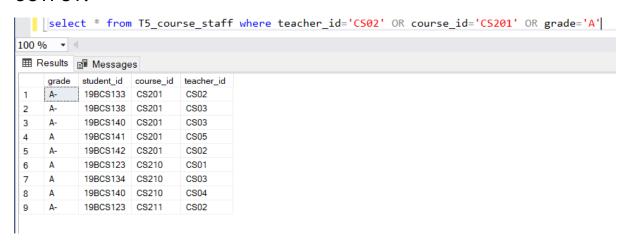
select * from T5_grades where grade='A' OR course_id='CS210'



ii)

iselect * from T5_course_staff where teacher_id='CS02' OR course_id='CS201' OR grade='A'

OUTPUT:



iii)

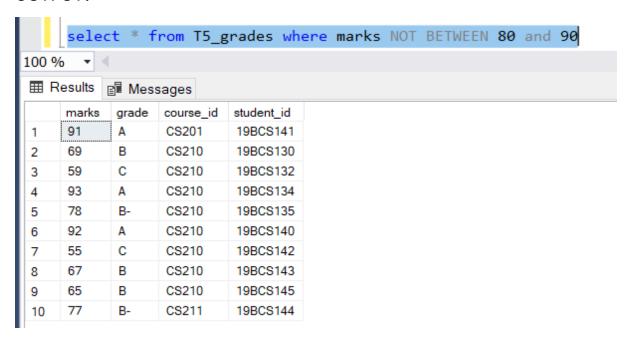
```
select first_name,last_name from T5_studentinfo
where age='19' and
student_id in(select student_id from T5_parentinfo where student_id>'19BCS130')
```

```
select first_name,last_name from T5_studentinfo
    where age='19' and
    student_id in(select student_id from T5_parentinfo where student_id>'19BCS130')
100 % ▼ ◀
first_name
             last_name
             ST
    JOHN
    SHAHRUKH KHAN
    SHILPA
              SHETTY
    KARTHIK
              KUMAR
    SHYAM
              MUNGALA
    ANUSHKA
              SHETTY
    KRITHIKA
              KUMAR
    IRFAN
              SHIEK
              KHILLADI
    SURIYA
    DISHA
              TARA
10
```

iv)

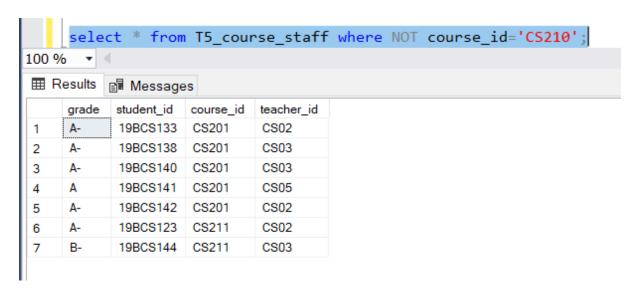
select * from T5_grades where marks NOT BETWEEN 80 and 90

OUTPUT:



V)

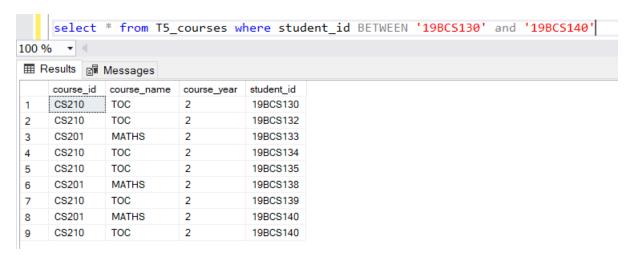
select * from T5_course_staff where NOT course_id='CS210';



vi)

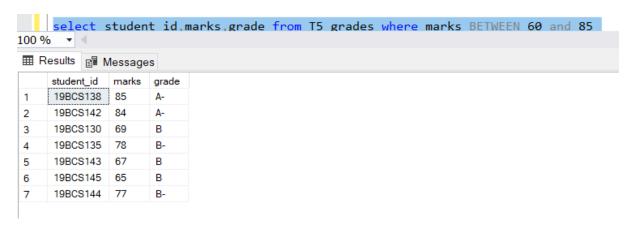
select * from T5_courses where student_id BETWEEN '19BCS130' and '19BCS140'

OUTPUT:



vii)

select student_id,marks,grade from T5_grades where marks BETWEEN 60 and 85



viii)

select student_id,DOB from T5_studentinfo where age=20 and student_id BETWEEN '19BCS140' and '19BCS150';

