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SQL PYQ Discussion: Part 4

Special class

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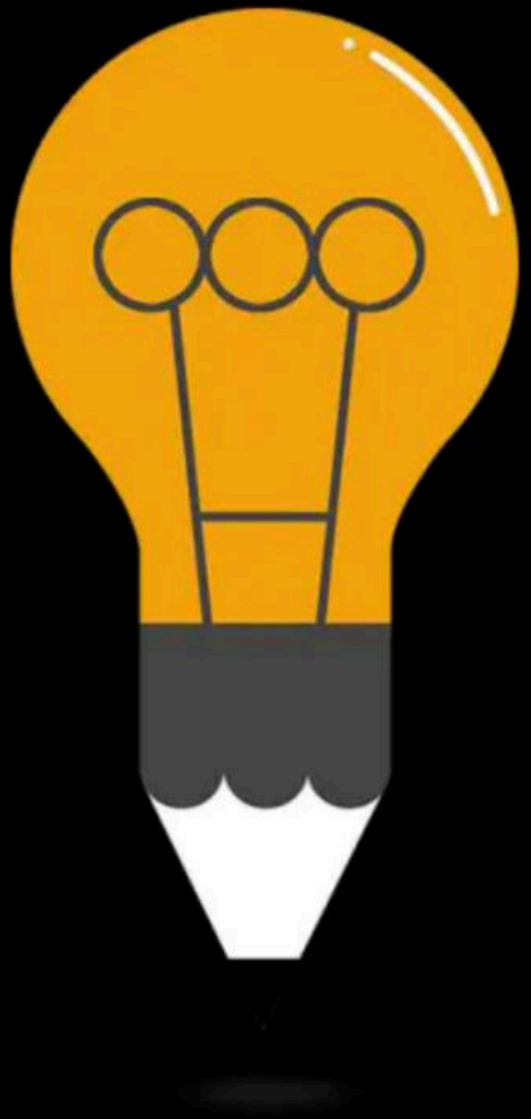

SQL PYQs

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GATE-1999

Which of the following is/are correct?

A. An SQL query automatically eliminates duplicates
B. An SQL query will not work if there are no indexes on the relations
C. SQL permits attribute names to be repeated in the same relation
D. None of the above

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GATE-1999

Consider the set of relations

- EMP (Employee-no. Dept-no, Employee-name, Salary)
- DEPT (Dept-no. Dept-name, Location)

Write an SQL query to:

a)Find all employees names who work in departments located at 'Calcutta' and whose salary is greater than Rs.50,000.

b)Calculate, for each department number, the number of employees with a salary greater than Rs. 1,00,000.

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GATE-2000

Given relations r(w, x) and s(y, z) the result of

```
select distinct w, x
from r, s
```

is guaranteed to be same as r, provided.

A. r has no duplicates and s is non-empty
B. r and s have no duplicates
C. s has no duplicates and r is non-empty
D. r and s have the same number of tuples

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GATE-2000

In SQL, relations can contain null values, and comparisons with null values are treated as unknown. Suppose all comparisons with a null value are treated as false. Which of the following pairs is not equivalent?

A. $x = 5$ $not(not(x = 5))$

B. $x = 5$ $x > 4$ and $x < 6$, where x is an integer

C. $x \neq 5$ $not(x = 5)$

D. none of the above

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GATE-2001

Consider a relation geq which represents "greater than or equal to", that is, $(x, y) \in$ geq only if $y \geq x$.

```
create table geq
(
    ib integer not null,
    ub integer not null,
    primary key ib,
    foreign key (ub) references geq on delete cascade
);
```

Which of the following is possible if tuple (x,y) is deleted?

A. A tuple (z,w) with z > y is deleted
B. A tuple (z,w) with z > x is deleted
C. A tuple (z,w) with w < x is deleted
D. The deletion of (x,y) is prohibited

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GATE-2001

Consider a relation examinee (regno, name, score), where regno is the primary key to score is a real number. Write an SQL query to list the *regno* of examinees who have a score greater than the average score.

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GATE-2001

Consider a relation examinee (regno, name, score), where regno is the primary key to score is a real number.

Suppose the relation appears (regno, centr_code) specifies the center where an examinee appears. Write an SQL query to list the centr_code having an examinee of score greater than 80.

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GATE-2003

Consider the set of relations shown below and the SQL query that follows.

Students: (Roll_number, Name, Date_of_birth)

Courses: (Course_number, Course_name, Instructor)

Grades: (Roll_number, Course_number, Grade)

```
Select distinct Name
from Students, Courses, Grades
where Students.Roll_number=Grades.Roll_number
 and Courses.Instructor = 'Korth'
 and Courses.Course_number = Grades.Course_number
 and Grades.Grade = 'A'
```

Which of the following sets is computed by the above query?

A. Names of students who have got an A grade in all courses taught by Korth
B. Names of students who have got an A grade in all courses
C. Names of students who have got an A grade in at least one of the courses taught by Korth
D. None of the above

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GATE-2004

The employee information in a company is stored in the relation

- Employee (name, sex, salary, deptName)

Consider the following SQL query

```
Select deptName
    From Employee
    Where sex = 'M'
    Group by deptName
    Having avg(salary) >
        (select avg (salary) from Employee)
```

It returns the names of the department in which

A. the average salary is more than the average salary in the company
B. the average salary of male employees is more than the average salary of all male employees in the company
C. the average salary of male employees is more than the average salary of employees in same the department
D. the average salary of male employees is more than the average salary in the company

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GATE-2004

A relational database contains two tables student and department in which student table has columns roll_no, name and dept_id and department table has columns dept_id and dept_name. The following insert statements were executed successfully to populate the empty tables:

```
Insert into department values (1, 'Mathematics')
Insert into department values (2, 'Physics')
Insert into student values (1, 'Navin', 1)
Insert into student values (2, 'Mukesh', 2)
Insert into student values (3, 'Gita', 1)
```

How many rows and columns will be retrieved by the following SQL statement?

```
Select * from student, department
```

A. 0 row and 4 columns

B. 3 rows and 4 columns

C. 3 rows and 5 columns

D. 6 rows and 5 columns

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GATE-2004

A table T1 in a relational database has the following rows and columns:

Roll no.	Marks
1	10
2	20
3	30
4	NULL

The following sequence of SQL statements was successfully executed on table T1.

```
Update T1 set marks = marks + 5
Select avg(marks) from T1
```

What is the output of the select statement?

A. 18.75 B. 20 C. 25 D. Null

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GATE-2004

Consider two tables in a relational database with columns and rows as follows:

Table: Student

Roll_no	Name	Dept_id
1	ABC	1
2	DEF	1
3	GHI	2
4	JKL	3

Table: Department

Dept_id	Dept_name
1	A
2	B
3	C

Roll_no is the primary key of the Student table, Dept_id is the primary key of the Department table and Student.Dept_id is a foreign key from Department.Dept_id

What will happen if we try to execute the following two SQL statements?

i. update Student set Dept_id = Null where Roll_on = 1
ii. update Department set Dept_id = Null where Dept_id = 1

A. Both i and ii will fail
B. i will fail but ii will succeed
C. i will succeed but ii will fail
D. Both i and ii will succeed

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GATE-2005

The relation **book** (title,price) contains the titles and prices of different books. Assuming that no two books have the same price, what does the following SQL query list?

```
select title
from book as B
where (select count(*)
    from book as T
    where T.price>B.price) < 5
```

A. Titles of the four most expensive books

B. Title of the fifth most inexpensive book

C. Title of the fifth most expensive book

D. Titles of the five most expensive books

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GATE-2005

In an inventory management system implemented at a trading corporation, there are several tables designed to hold all the information. Amongst these, the following two tables hold information on which items are supplied by which suppliers, and which warehouse keeps which items along with the stock-level of these items.

Supply = (supplierid, itemcode)
Inventory = (itemcode, warehouse, stocklevel)

For a specific information required by the management, following SQL query has been written

```
Select distinct STMP.supplierid
From Supply as STMP
Where not unique (Select ITMP.supplierid
                  From Inventory, Supply as ITMP
                  Where STMP.supplierid = ITMP.supplierid
                  And ITMP.itemcode = Inventory.itemcode
                  And Inventory.warehouse = 'Nagpur');
```

For the warehouse at Nagpur, this query will find all suppliers who

A. do not supply any item
B. supply exactly one item
C. supply one or more items
D. supply two or more items

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GATE-2006

Consider the relation account (customer, balance) where the customer is a primary key and there are no null values. We would like to rank customers according to decreasing balance. The customer with the largest balance gets rank 1. Ties are not broke but ranks are skipped: if exactly two customers have the largest balance they each get rank 1 and rank 2 is not assigned.

Query 1 :

```
select A.customer, count(B.customer)
from account A, account B
where A.balance <=B.balance
group by A.customer
```

Query 2 :

```
select A.customer, 1+count(B.customer)
from account A, account B
where A.balance < B.balance
group by A.customer
```

Consider these statements about Query 1 and Query 2.

1. Query 1 will produce the same row set as Query 2 for some but not all databases.
2. Both Query 1 and Query 2 are a correct implementation of the specification
3. Query1 is a correct implementation of the specification but Query 2 is not
4. Neither Query 1 nor Query 2 is a correct implementation of the specification
5. Assigning rank with a pure relational query takes less time than scanning in decreasing balance order assigning ranks using ODBC.

Which two of the above statements are correct?

A. 2 and 5 B. 1 and 3 C. 1 and 4 D. 3 and 5

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GATE-2006

Consider the relation enrolled (student, course) in which (student, course) is the primary key, and the relation paid (student, amount) where student is the primary key. Assume no null values and no foreign keys or integrity constraints. Given the following four queries:

Query1:

```
select student from enrolled where student in (select student from paid)
```

Query2:

```
select student from paid where student in (select student from enrolled)
```

Query3:

```
select E.student from enrolled E, paid P where E.student = P.student
```

Query4:

```
select student from paid where exists
    (select * from enrolled where enrolled.student = paid.student)
```

Which one of the following statements is correct?

A. All queries return identical row sets for any database
B. Query2 and Query4 return identical row sets for all databases but there exist databases for which Query1 and Query2 return different row sets
C. There exist databases for which Query3 returns strictly fewer rows than Query2
D. There exist databases for which Query4 will encounter an integrity violation at runtime

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GATE-2006

Consider a database with three relation instances shown below. The primary keys for the Drivers and Cars relation are *did* and *cid* respectively and the records are stored in ascending order of these primary keys as given in the tables. No indexing is available in the database.

D: Drivers relation

did	dname	rating	age
22	Karthikeyan	7	25
29	Salman	1	33
31	Boris	8	55
32	Amoldt	8	25
58	Schumacher	10	35
64	Sachin	7	35
71	Senna	10	16
74	Sachin	9	35
85	Rahul	3	25
95	Ralph	3	53

R: Reserves relation

did	Cid	day
22	101	10 – 10 – 06
22	102	10 – 10 – 06
22	103	08 – 10 – 06
22	104	07 – 10 – 06
31	102	10 – 11 – 16
31	103	06 – 11 – 16
31	104	12 – 11 – 16
64	101	05 – 09 – 06
64	102	08 – 09 – 06
74	103	08 – 09 – 06

C: Cars relation

Cid	Cname	colour
101	Renault	blue
102	Renault	red
103	Ferrari	green
104	Jaguar	red

What is the output of the following SQL query?

```
select D.dname
from Drivers D
where D.did in  (
                    select R.did
                    from Cars C, Reserves R
                    where R.cid = C.cid and C.colour = 'red'
                    intersect
                    select R.did
                    from Cars C, Reserves R
                    where R.cid  = C.cid and C.colour = 'green'
                     )
```

A. Karthikeyan, Boris
B. Sachin, Salman
C. Karthikeyan, Boris, Sachin
D. Schumacher, Senna

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GATE-2007

Consider the table **employee**(empId, name, department, salary) and the two queries Q_1, Q_2 below. Assuming that department 5 has more than one employee, and we want to find the employees who get higher salary than anyone in the department 5, which one of the statements is **TRUE** for any arbitrary employee table?

Q_1 :
```
Select e.empId
From employee e
Where not exists
    (Select * From employee s Where s.department = "5" and s.salary >= e.salary)
```

Q_2 :
```
Select e.empId
From employee e
Where e.salary > Any
    (Select distinct salary From employee s Where s.department = "5")
```

A. Q_1 is the correct query

B. Q_2 is the correct query

C. Both Q_1 and Q_2 produce the same answer

D. Neither Q_1 nor Q_2 is the correct query

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GATE-2008

Student (school-id, sch-roll-no, sname, saddress)
School (school-id, sch-name, sch-address, sch-phone)
Enrolment(school-id sch-roll-no, erollno, examname)
ExamResult(erollno, examname, marks)

What does the following SQL query output?

```
SELECT sch-name, COUNT (*)
FROM School C, Enrolment E, ExamResult R
WHERE E.school-id = C.school-id
AND
E.examname = R.examname AND E.erollno = R.erollno
AND
R.marks = 100 AND S.school-id IN (SELECT school-id
                                  FROM student
                                  GROUP BY school-id
                                   HAVING COUNT (*) > 200)
GROUP By school-id
```

A. for each school with more than 200 students appearing in exams, the name of the school and the number of 100s scored by its students

B. for each school with more than 200 students in it, the name of the school and the number of 100s scored by its students

C. for each school with more than 200 students in it, the name of the school and the number of its students scoring 100 in at least one exam

D. nothing; the query has a syntax error

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GATE-2009

Consider the following relational schema:

Suppliers(sid:integer, sname:string, city:string, street:string)

Parts(pid:integer, pname:string, color:string)

Catalog(sid:integer, pid:integer, cost:real)

Consider the following relational query on the above database:

```
SELECT S.sname
FROM    Suppliers S
WHERE S.sid NOT IN (SELECT C.sid
                    FROM Catalog C
                    WHERE C.pid NOT IN (SELECT P.pid
                                        FROM Parts P
                                        WHERE P.color<>'blue'))
```

Assume that relations corresponding to the above schema are not empty. Which one of the following is the correct interpretation of the above query?

A. Find the names of all suppliers who have supplied a non-blue part.

B. Find the names of all suppliers who have not supplied a non-blue part.

C. Find the names of all suppliers who have supplied only non-blue part.

D. Find the names of all suppliers who have not supplied only blue parts.

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GATE-2010

A relational schema for a train reservation database is given below.

- **passenger(pid, pname, age)**
- **reservation(pid, class, tid)**

Passenger

pid	pname	Age
0	Sachine	65
1	Rahul	66
2	Sourav	67
3	Anil	69

Reservation

pid	class	tid
0	AC	8200
1	AC	8201
2	SC	8201
5	AC	8203
1	SC	8204
3	AC	8202

What **pids** are returned by the following SQL query for the above instance of the tables?

```
SELECT pid
FROM Reservation
WHERE class='AC' AND
    EXISTS (SELECT *
            FROM Passenger
            WHERE age>65 AND
            Passenger.pid=Reservation.pid)
```

A. 1, 0 B. 1, 2 C. 1, 3 D. 1, 5

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GATE-2011

Consider a database table T containing two columns X and Y each of type integer. After the creation of the table, one record (X=1, Y=1) is inserted in the table.

Let MX and MY denote the respective maximum values of X and Y among all records in the table at any point in time. Using MX and MY, new records are inserted in the table 128 times with X and Y values being MX+1, 2*MY+1 respectively. It may be noted that each time after the insertion, values of MX and MY change.

What will be the output of the following SQL query after the steps mentioned above are carried out?

```
SELECT Y FROM T WHERE X=7;
```

A. 127 B. 255 C. 129 D. 257

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GATE-2011

Database table by name Loan_Records is given below.

Borrower	Bank_Manager	Loan_Amount
Ramesh	Sunderajan	10000.00
Suresh	Ramgopal	5000.00
Mahesh	Sunderajan	7000.00

What is the output of the following SQL query?

```
SELECT count(*)
FROM (
    SELECT Borrower, Bank_Manager FROM Loan_Records) AS S
    NATURAL JOIN
    (SELECT Bank_Manager, Loan_Amount FROM Loan_Records) AS T
);
```

A. 3 B. 9 C. 5 D. 6

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GATE-2012

Which of the following statements are **TRUE** about an SQL query?

P : An SQL query can contain a HAVING clause even if it does not have a GROUP BY clause
Q : An SQL query can contain a HAVING clause only if it has a GROUP BY clause
R : All attributes used in the GROUP BY clause must appear in the SELECT clause
S : Not all attributes used in the GROUP BY clause need to appear in the SELECT clause

A. P and R B. P and S C. Q and R D. Q and S

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GATE-2012

Consider the following relations A, B and C :

A

Id	Name	Age
12	Arun	60
15	Shreya	24
99	Rohit	11

B

Id	Name	Age
15	Shreya	24
25	Hari	40
98	Rohit	20
99	Rohit	11

C

Id	Phone	Area
10	2200	02
99	2100	01

How many tuples does the result of the following SQL query contain?

```
SELECT A.Id
FROM A
WHERE A.Age > ALL (SELECT B.Age
                   FROM B
                   WHERE B.Name = 'Arun')
```

A. 4 B. 3 C. 0 D. 1

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GATE-2014

Given the following statements:

S1: A foreign key declaration can always be replaced by an equivalent check assertion in SQL.

S2: Given the table $R(a, b, c)$ where a and b together form the primary key, the following is a valid table definition.

```
CREATE TABLE S (
     a INTEGER,
     d INTEGER,
     e INTEGER,
     PRIMARY KEY (d),
     FOREIGN KEY (a) references R)
```

Which one of the following statements is **CORRECT**?

A. S1 is TRUE and S2 is FALSE
B. Both S1 and S2 are TRUE
C. S1 is FALSE and S2 is TRUE
D. Both S1 and S2 are FALSE

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GATE-2014

Given the following schema:

employees(emp-id, first-name, last-name, hire-date, dept-id, salary)

departments(dept-id, dept-name, manager-id, location-id)

You want to display the last names and hire dates of all latest hires in their respective departments in the location ID 1700. You issue the following query:

```
SQL>SELECT last-name, hire-date
    FROM employees
    WHERE (dept-id, hire-date) IN
    (SELECT dept-id, MAX(hire-date)
    FROM employees JOIN departments USING(dept-id)
    WHERE location-id =1700
    GROUP BY dept-id);
```

What is the outcome?

A. It executes but does not give the correct result
B. It executes and gives the correct result.
C. It generates an error because of pairwise comparison.
D. It generates an error because of the GROUP BY clause cannot be used with table joins in a sub-query.

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GATE-2014

SQL allows duplicate tuples in relations, and correspondingly defines the multiplicity of tuples in the result of joins. Which one of the following queries always gives the same answer as the nested query shown below:

```
select * from R where a in (select S.a from S)
```

A. select R.* from R, S where R.a=S.a → duplicate
B. select distinct R.* from R,S where R.a=S.a
C. select R.* from R,(select distinct a from S) as S1 where R.a=S1.a
D. select R.* from R,S where R.a=S.a and is unique R

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GATE-2014

Consider the following relational schema:

employee (empId,empName,empDept)

customer (custId,custName,salesRepId,rating)

salesRepId is a foreign key referring to **empId** of the employee relation. Assume that each employee makes a sale to at least one customer. What does the following query return?

```
SELECT empName   FROM employee E
WHERE NOT EXISTS (SELECT custId
    FROM customer C
    WHERE C.salesRepId = E.empId
    AND C.rating <> 'GOOD');
```

A. Names of all the employees with at least one of their customers having a 'GOOD' rating.
B. Names of all the employees with at most one of their customers having a 'GOOD' rating.
C. Names of all the employees with none of their customers having a 'GOOD' rating.
D. Names of all the employees with all their customers having a 'GOOD' rating.

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GATE-2015

final { Raj 310
Rohit 140

Consider the following relation:

Student S

Roll_No	Student_Name
1	Raj
2	Rohit
3	Raj

Performance P

Roll_No	Course	Marks
1	Math	80
1	English	70
2	Math	75
3	English	80
2	Physics	65
3	Math	80

1 Raj Math 80
1 Raj Eng. 70
2 Rohit Math 75
2 Rohit Phy 65
3 Raj Eng 80
3 Raj Math 80

Consider the following SQL query.

```
SELECT S.Student_Name, Sum(P. Marks)
FROM Student S, Performance P
WHERE S.Roll_No= P.Roll_No
GROUP BY S.STUDENT_Name
```

The numbers of rows that will be returned by the SQL query is_____.

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GATE-2015

Consider the following relation

Cinema(*theater, address, capacity*)

Which of the following options will be needed at the end of the SQL query

```
SELECT P1.address
FROM Cinema P1
```

such that it always finds the addresses of theaters with maximum capacity?

A. `WHERE P1.capacity >= All (select P2.capacity from Cinema P2)`

B. `WHERE P1.capacity >= Any (select P2.capacity from Cinema P2)`

C. `WHERE P1.capacity > All (select max(P2.capacity) from Cinema P2)`

D. `WHERE P1.capacity > Any (select max(P2.capacity) from Cinema P2)`

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GATE-2016

Consider the following database table named water_schemes:

Water_schemes

scheme_no	district_name	capacity
1	Ajmer	20
1	Bikaner	10
2	Bikaner	10
3	Bikaner	20
1	Churu	10
2	Churu	20
1	Dungargarh	10

Ans = 2

The number of tuples returned by the following SQL query is _____.

```
with total (name, capacity) as
    select district_name, sum (capacity)
    from water_schemes
    group by district_name
with total_avg (capacity) as
   select avg (capacity)
   from total
select name
   from total, total_avg
   where total.capacity ≥ total_avg.capacity
```

Total

Name	capacity
Ajmer	20
Bikaner	40
Churu	30
Dungargarh	10

Total_avg

capacity
25

Ans.

Bikaner
Churu

GATE-2017

Ans - 2.6

Consider a database that has the relation schema EMP (EmpId, EmpName, and DeptName). An instance of the schema EMP and a SQL query on it are given below:

EMP

EmpId	EmpName	DeptName
1	XYA	AA
2	XYB	AA
3	XYC	AA
4	XYD	AA
5	XYE	AB
6	XYF	AB
7	XYG	AB
8	XYH	AC
9	XYI	AC
10	XYJ	AC
11	XYK	AD
12	XYL	AD
13	XYM	AE

```
SELECT AVG(EC.Num)
FROM EC
WHERE (DeptName, Num) IN
    (SELECT DeptName, COUNT(EmpId) AS
                      EC(DeptName, Num)
    FROM EMP
    GROUP BY DeptName)
```

The output of executing the SQL query is _____ .

$\frac{4+3+3+2+1}{5} = \frac{13}{5} = 2.6$

EC

DeptName	Num
AA	4
AB	3
AC	3
AD	2
AE	1

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GATE-2017

Consider the following database table named top_scorer.

top_scorer

player	country	goals
Klose	Germany	16
Ronaldo	Brazil	15
G Muller	Germany	14
Fontaine	France	13
Pele	Brazil	12
Klinsmann	Germany	11
Kocsis	Hungary	11
Batistuta	Argentina	10
Cubillas	Peru	10
Lato	Poland	10
Lineker	England	10
T Muller	Germany	10
Rahn	Germany	10

> any (16, 14, 11, 10, 10)

> 10

Consider the following SQL query:

```
SELECT ta.player FROM top_scorer AS ta
WHERE ta.goals >ALL (SELECT tb.goals
    FROM top_scorer AS tb
    WHERE tb.country = 'Spain')
AND ta.goals > ANY (SELECT tc.goals
    FROM top_scorer AS tc
    WHERE tc.country='Germany')
```

Ans = 7

The number of tuples returned by the above SQL query is _____

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GATE-2018

Consider the following two tables and four queries in SQL.

Book (isbn, bname), Stock(isbn, copies)

Query 1:

```
SELECT B.isbn, S.copies FROM Book B INNER JOIN Stock S ON B.isbn=S.isbn;
```

Query 2:

```
SELECT B.isbn, S.copies FROM Book B LEFT OUTER JOIN Stock S ON B.isbn=S.isbn;
```

Query 3:

```
SELECT B.isbn, S,copies FROM Book B RIGHT OUTER JOIN Stock S ON B.isbn=S.isbn
```

Query 4:

```
SELECT B.isbn, S.copies FROM Book B FULL OUTER JOIN Stock S ON B.isbn=S.isbn
```

Which one of the queries above is certain to have an output that is a superset of the outputs of the other three queries?

A. Query 1 B. Query 2 C. Query 3 D. Query 4

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GATE-2019

A relational database contains two tables Student and Performance as shown below:

Table: student

Roll_no	Student_name
1	Amit
2	Priya
3	Vinit
4	Rohan
5	Smita

Table: Performance

Roll_no	Subject_code	Marks
1	A	86
1	B	95
1	C	90
2	A	89
2	C	92
3	C	80

The primary key of the Student table is Roll_no. For the performance table, the columns Roll_no. and Subject_code together form the primary key. Consider the SQL query given below:

```
SELECT S.Student_name, sum(P.Marks) FROM Student S, Performance P WHERE P.Marks >84 GROUP BY S.Student_name;
```

The number of rows returned by the above SQL query is _____

Ans. = 5

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GATE-2020

Consider a relational database containing the following schemas.

Catalogue

sno	pno	cost
S1	P1	150
S1	P2	50
S1	P3	100
S2	P4	200
S2	P5	250
S3	P1	250
S3	P2	150
S3	P5	300
S3	P4	250

Suppliers

sno	sname	location
S1	M/s Royal furniture	Delhi
S2	M/s Balaji furniture	Bangalore
S3	M/s Premium furniture	Chennai

Parts

pno	pname	part_spec
P1	Table	Wood
P2	Chair	Wood
P3	Table	Steel
P4	Almirah	Steel
P5	Almirah	Wood

```
SELECT s.sno, s.sname
FROM Suppliers s, Catalogue c
WHERE s.sno=c.sno AND
    cost > (SELECT AVG (cost)
            FROM Catalogue
            WHERE pno = 'P4'
            GROUP BY pno);
```

The number of rows returned by the above SQL query is

Ans = 4

S2 M/s B

S3 M/s R

S3 M/s r

S3 M/s Ry.

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GATE-2021

The relation scheme given below is used to store information about the employees of a company, where **empId** is the key and **deptId** indicates the department to which the employee is assigned. Each employee is assigned to exactly one department.

emp(empId, name, gender, salary, deptId)

Consider the following SQL query:

```
select deptId, count(*)
from emp
where gender = "female" and salary > (select avg(salary)from emp)
group by deptId;
```

The above query gives, for each department in the company, the number of female employees whose salary is greater than the average salary of

A. employees in the department
B. employees in the company
C. female employees in the department
D. female employees in the company

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GATE-2022

Consider the relational database with the following four schemas and their respective instances.

- Student(sNo, sName, dNo) Dept(dNo, dName)
- Course(cNo, cName, dNo) Register(sNo, cNo)

	Students	
sNo	sName	dNo
S01	James	D01
S02	Rocky	D01
S03	Jackson	D02
S04	Jane	D01
S05	Milli	D02

	Depth
dNo	dName
D01	CSE
D02	EEE

	Course	
cNo	cName	dNo
C11	DS	D01
C12	OS	D01
C21	DE	D02
C22	PT	D02
C23	CV	D03

	Register
sNo	cNo
S01	C11
S01	C12
S02	C11
S03	C21
S03	C22
S03	C23
S04	C11
S04	C12
S05	C11
S05	C21

```
SELECT * FROM Student AS S WHERE NOT EXIST
  (SELECT cNo FROM Course WHERE dNo = "D01"
      EXCEPT
   SELECT cNo FROM Register WHERE sNo = S.sNo)
```

The number of rows returned by the above SQL query is _____

Consider the following table named `Student` in a relational database. The primary key of this table is rollNum.

`Student`

rollNum	name	gender	marks
1	Naman	M	62
2	Aliya	F	70
3	Aliya	F	80
4	James	M	82
5	Swati	F	65

Ans => 2

The SQL query below is executed on this database.

```
SELECT *
FROM Student
WHERE gender = 'F' AND
    marks > 65;
```

The number of rows returned by the query is _____.

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