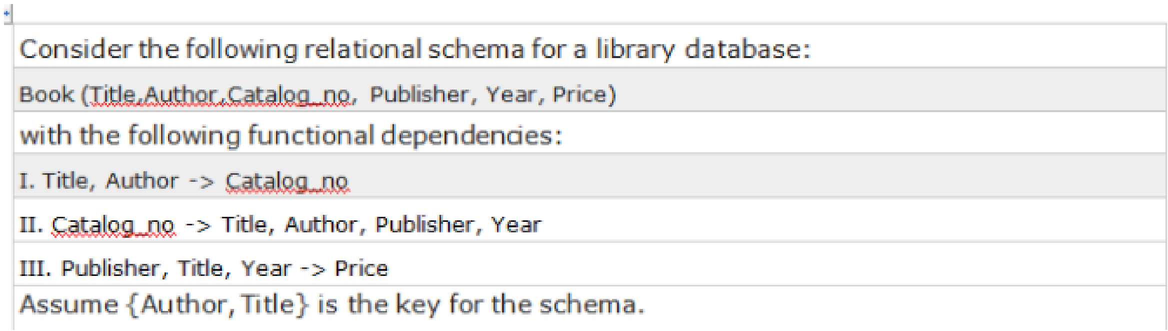
Database Fundamentals Test

Questions

All the best Amigos

In what normal form is the given schema [choose all that apply]



Consider the following relational schema for a library database:

Book (Title,Author,Catalog_no, Publisher, Year, Price)

with the following functional dependencies:

I. Title, Author -> Catalog_no

II. Catalog_no -> Title, Author, Publisher, Year

III. Publisher, Title, Year -> Price

Assume {Author, Title} is the key for the schema.

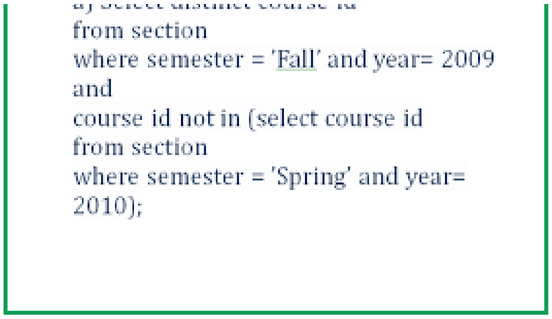
☑ 1 NF

□ 2 NF

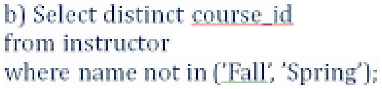
□ 3 NF

Which of the following should be used to find all the courses taught in the Fall 2009 semester but not in the Spring 2010 semester .

a) Select distinct course id



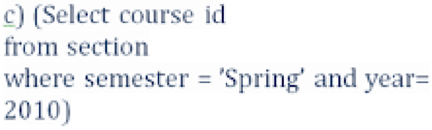
```
a) Select distinct course id
from section
where semester = 'Fall' and year= 2009
and
course id not in (select course id
from section
where semester = 'Spring' and year=
2010);
```



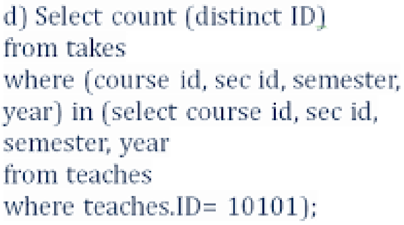
```
b) Select distinct course_id
from instructor
where name not in ('Fall', 'Spring');
```

● Option 1

○ Option 2



```
c) (Select course id
from section
where semester = 'Spring' and year=
2010)
```

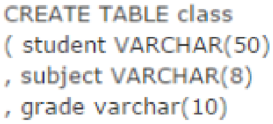


```
d) Select count (distinct ID)
from takes
where (course id, sec id, semester,
year) in (select course id, sec id,
semester, year
from teaches
where teaches.ID= 10101);
```

○ Option 3

○ Option 4

Refer Following table: List students who have applied for all 5 subjects



```
CREATE TABLE class
( student VARCHAR(50)
, subject VARCHAR(8)
, grade varchar(10)
```

)

○ SELECT student FROM class GROUP BY student HAVING COUNT(subject) = 5

○ SELECT student FROM class WHERE COUNT(subject)=5

● SELECT student FROM class GROUP BY student HAVING COUNT(DISTINCT subject) =5

○ SELECT student FROM class where subject = 'sub1' and subject = 'sub2' and subject = 'sub3' and subject = 'sub4' and subject = 'sub5'

What is true about UNIQUE Key [choose all that apply]

□ It is same as PRIMARY KEY

□ It allows NULLs

☑ It allows only one NULL

□ Its same as candidate key

The sequence followed by SQL Query Compiler to compile a sql query is

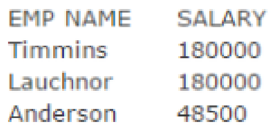
○ A) WHERE => GROUP BY => FROM => HAVING => SELECT => ORDER BY

● B) FROM => WHERE => GROUP BY => HAVING => SELECT => ORDER BY

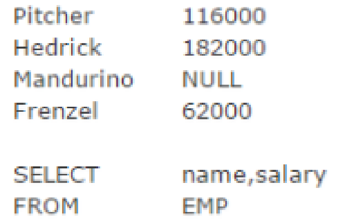
○ C) SELECT => ORDER BY => WHERE => GROUP BY => FROM => HAVING

○ D) FROM => HAVING => WHERE => GROUP BY => SELECT => ORDER BY

Refer Following table: Which clause do you add to the SQL query to eliminate employees without salary data from the result set?



EMP NAME	SALARY
Timmins	180000
Lauchnor	180000
Anderson	48500



Pitcher	116000
Hedrick	182000
Mandurino	NULL
Frenzel	62000

```
SELECT      name,salary
FROM        EMP
```

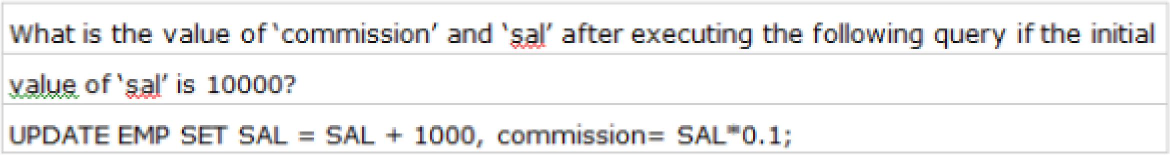
○ WHERE salary <> NULL

○ WHERE salary IS NOT EMPTY;

● WHERE salary IS NOT NULL;

○ WHERE salary <> ‘NULL’

What will be the output of the following



What is the value of ‘commission’ and ‘sal’ after executing the following query if the initial value of ‘sal’ is 10000?

```
UPDATE EMP SET SAL = SAL + 1000, commission= SAL*0.1;
```

● sal = 11000, commission = 1000

○ sal = 11000, commission = 1100

○ sal = 11000, commission can be either of 1000 , 1100 randomly

○ none of above

SELECT IIF (2 < 1, IIF (1=1, IIF (2>1, 'Good', 'Bad'), 'worse'), IIF (1<2, 'Good', 'Bad')) AS Solution What will the above query return: HINT :IIF =IF AND ONLY IF

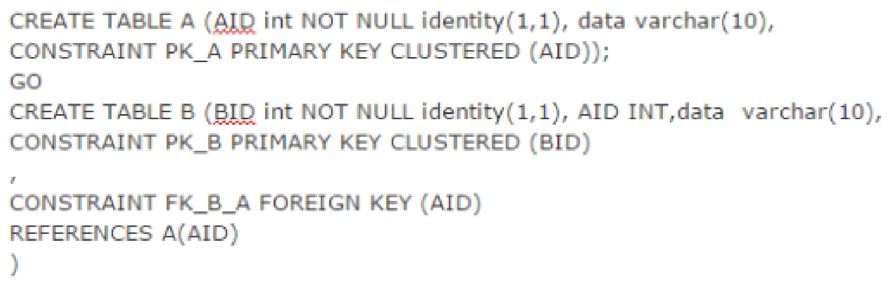
○ A) Bad

● B) Good

○ C) Worse

○ D) Null

Refer the following table structure: Which is perfect order to delete data from both tables



```
CREATE TABLE A (AID int NOT NULL identity(1,1), data varchar(10),
CONSTRAINT PK_A PRIMARY KEY CLUSTERED (AID));
GO
CREATE TABLE B (BID int NOT NULL identity(1,1), AID INT,data  varchar(10),
CONSTRAINT PK_B PRIMARY KEY CLUSTERED (BID)

,
CONSTRAINT FK_B_A FOREIGN KEY (AID)
REFERENCES A(AID)
)
```

○ truncate table A, truncate table B

● truncate table B,truncate table A

○ truncate table A,delete table B

○ truncate table B, delete table A

Select case when null = null then 'Yup' else 'Nope' end as Result

● Yup

○ Nope

○ Error in query

○ None of the above

What will be output of this query "SELECT * FROM Country, EmployeeDetail"

○ Throw error

● Output will be cross join of both tables

○ Output will be inner join

○ Output will be only Country table data

Result of the above query will be:

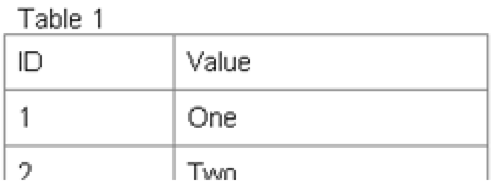
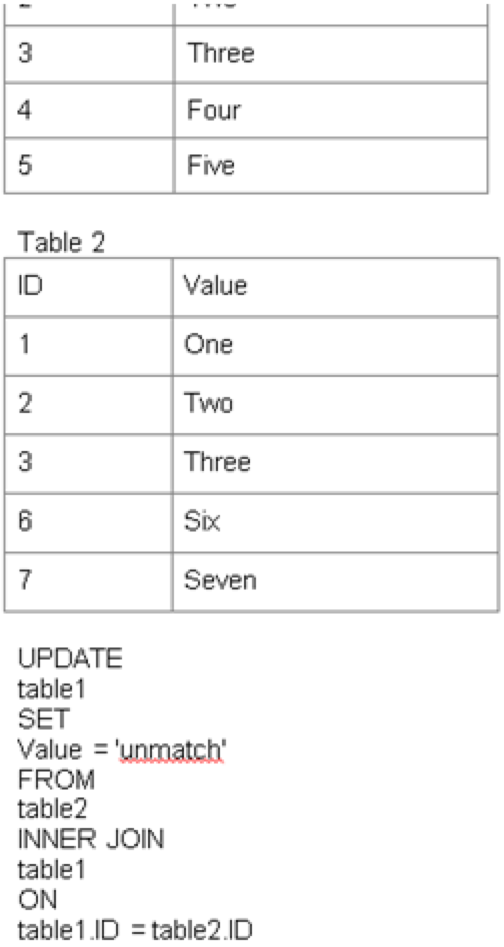


Table 1

ID	Value
1	One
2	Two

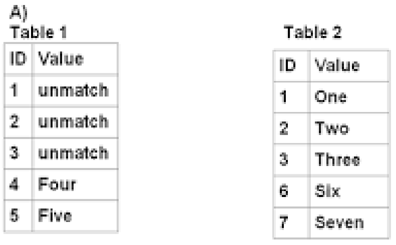


2	Two
3	Three
4	Four
5	Five

Table 2

ID	Value
1	One
2	Two
3	Three
6	Six
7	Seven

```
UPDATE
table1
SET
Value = 'unmatch'
FROM
table2
INNER JOIN
table1
ON
table1.ID = table2.ID
```



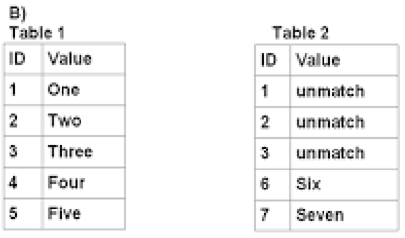
A)
Table 1

ID	Value
1	unmatch
2	unmatch
3	unmatch
4	Four
5	Five

Table 2

ID	Value
1	One
2	Two
3	Three
6	Six
7	Seven

● Option 1



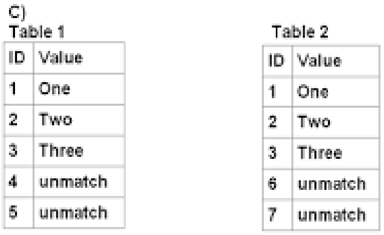
B)
Table 1

ID	Value
1	One
2	Two
3	Three
4	Four
5	Five

Table 2

ID	Value
1	unmatch
2	unmatch
3	unmatch
6	Six
7	Seven

○ Option 2



C)
Table 1

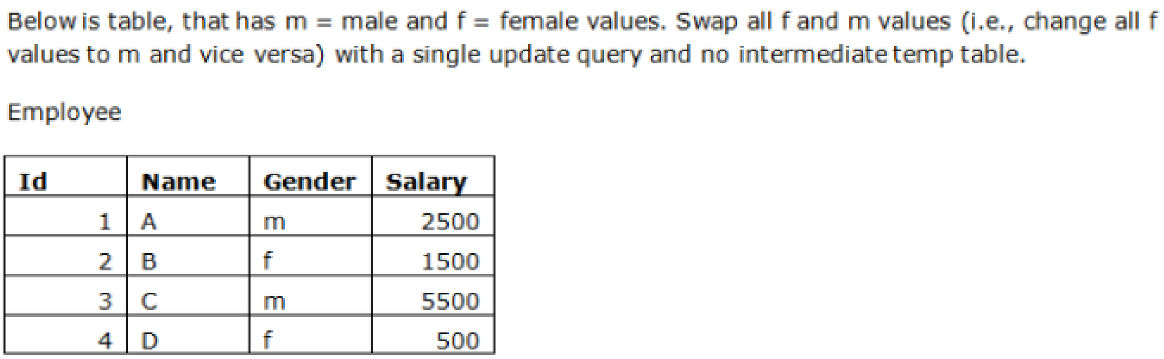
ID	Value
1	One
2	Two
3	Three
4	unmatch
5	unmatch

Table 2

ID	Value
1	One
2	Two
3	Three
6	unmatch
7	unmatch

○ Option 3

Refer following table



Below is table, that has m = male and f = female values. Swap all f and m values (i.e., change all f values to m and vice versa) with a single update query and no intermediate temp table.

Employee

Id	Name	Gender	Salary
1	A	m	2500
2	B	f	1500
3	C	m	5500
4	D	f	500

☑ 1. UPDATE employee SET gender = case when gender = ‘m’ THEN ‘f’ else ‘m’ END

□ 2. Update employee set gender = ‘m’ where gender = ‘f’ and set gender = ‘f’ where gender = ‘m’

□ 3. UPDATE employee SET gender = b.gender FROM employee a INNER JOIN (SELECT id, CASE GENDER WHEN ‘m’ THEN ‘f’ ELSE ‘m’ END as gender)b ON a.id = b.id

□ 4. NONE OF ABOVE

Refer the below table and the queries given below it: Number of rows returned from both queries?

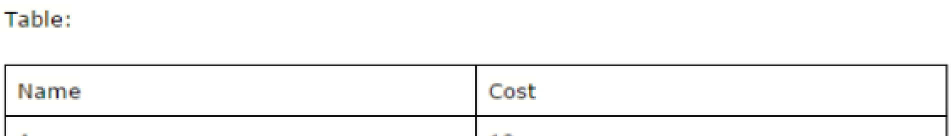
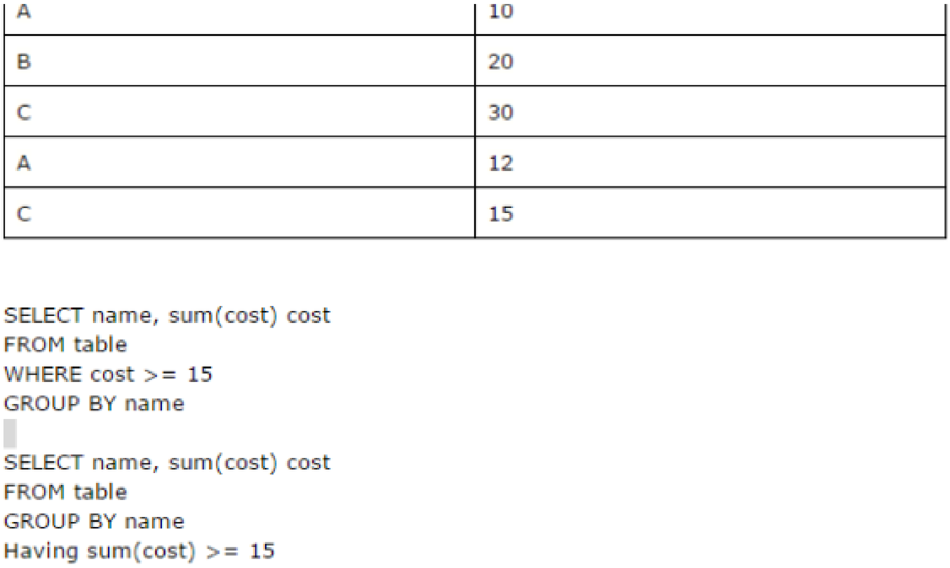


Table:

Name	Cost



A	10
B	20
C	30
A	12
C	15

```
SELECT name, sum(cost) cost
FROM table
WHERE cost >= 15
GROUP BY name

SELECT name, sum(cost) cost
FROM table
GROUP BY name
Having sum(cost) >= 15
```

○ 3, 3

● 2, 3

○ 3, 2

○ 3, 5

Create procedure dept_count proc(in dept name varchar(20),out d count integer)beginselect count(*) into d countfrom instructorwhere instructor.dept name= dept count proc.dept nameendWhich of the following is used to call the procedure given above ?

○ a) Declare d_count integer;

● b) Declare d_count integer; call dept_count proc('Physics', d_count);

○ c) Declare d_count integer; call dept_count proc('Physics');

○ d) Declare d_count; call dept_count proc('Physics', d_count);

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BACK SUBMIT

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