

DMS mid

exam

## Online Exams

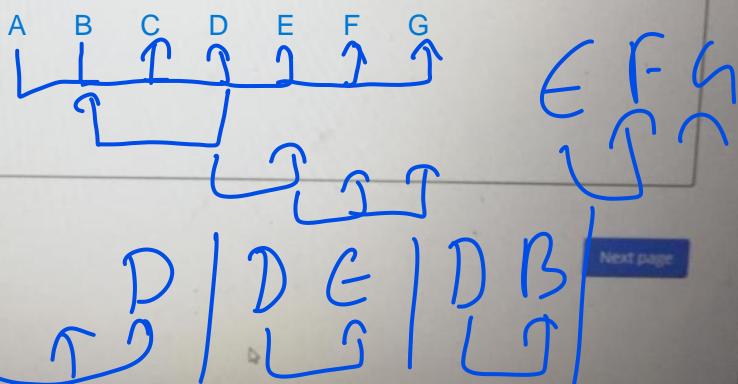
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Consider a relation R (A, B, C, D, E, F, G) with the following set of functional dependencies over R:

$F = \{ AB \rightarrow CDEFG, D \rightarrow B, D \rightarrow E, E \rightarrow FG \}$ . The corresponding BCNF relations are.

Select one:

- a. R1 (D, E), R2(A, B, C, D)
- b. R1 (E, F, G), R2 (A, B, C, D, E)
- c. R1 (E, F, G), R2 (D, E), R3 (A, B, C, D)
- d. R1 (A, B, C, D, E, F, G)
- e. R1 (E, F, G), R2 (D, E, B), R3 (A, C, D)



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## ONLINE EXAMS

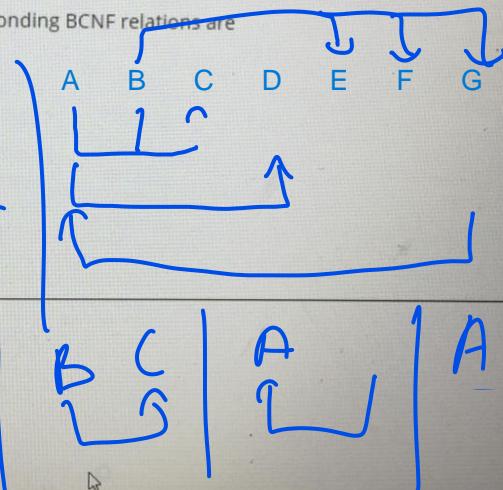
Sri Lanka Institute of Information Technology

Consider a relation R (A, B, C, D, E, F, G) with the following set of functional dependencies over R:

$F = \{ AB \rightarrow C, A \rightarrow D, G \rightarrow A, B \rightarrow EFG \}$ , The corresponding BCNF relations are

Select one:

- a. R1(A, D), R2 (B, E, F, G), R3 (A,B,C)
- b. R1 (A, D), R2 (B, E, F, G), R3 (A, B, C, G)
- c. R1 (A, D), R2 (B, E, F, G), R3 (A, G), R4 (B, C, G)
- d. R1 (A, D), R2 (B, E, F, G), R3 (A, B, C), R4 (A, G)
- e. R1(A, B C, D, E, F, G)



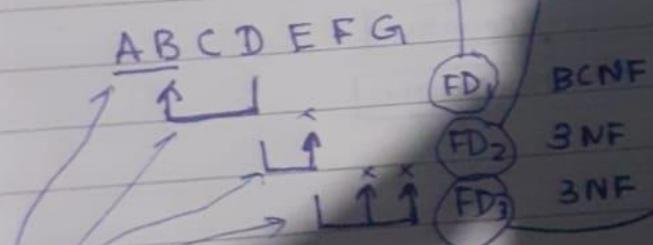
$R(A, B, C, D, E, F, G)$

$F \{ AB \rightarrow CDEFG, D \rightarrow B, D \rightarrow E, E \rightarrow FG \}$

$AB^+ = [ABCDEF] \checkmark$

$D^+ = [DBEFG]$

$E^+ = [EFG]$



$R_1 = \underline{EFG}$

$R_2 = \underline{DEB}$

$R_3 = \underline{ACD}$

Online Exams

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Question 6

Not yet answered

Marked out of 2.5

Flag question

Consider a relation R (F1, F2, F3, F4, F5) with the following set of functional dependencies over R:

$F = \{ F_2F_3 \rightarrow F_1F_4F_5, F_4 \rightarrow F_2 \}$ . What is the highest Normal form Relation R in?

Select one:

- a. 3rd Normal Form
- b. 2nd. Normal form
- c. 1st Normal Form
- d. Unnormalized Form
- e. BCNF

$F_1 \quad \underline{F_2} \quad \underline{F_3} \quad F_4 \quad F_5$

↑      |      |      ↑      ↑

↓      ↓      ↓      |      |

Diagram illustrating the functional dependencies:

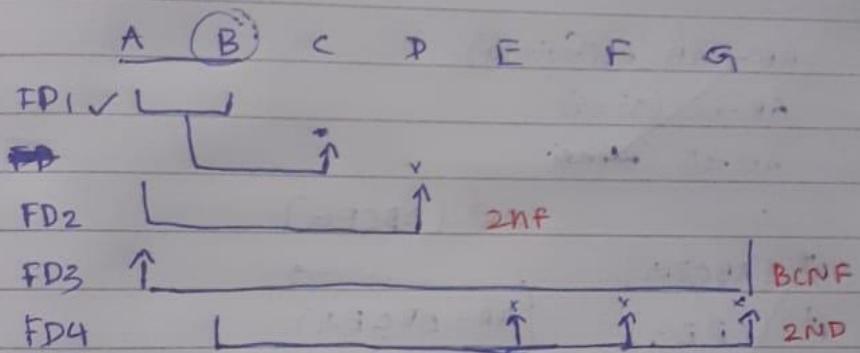
- $F_2$  and  $F_3$  determine  $F_1$ ,  $F_4$ , and  $F_5$ .
- $F_4$  determines  $F_2$ .

Next page

MCQ 1 8 15 22 SQL 26 ERR

$$\begin{aligned} AB^+ &= ABCDEFG \\ A &= ADC \\ G &= GA \end{aligned}$$

$R(A, B, C, D, E, F, G)$   
 $F = \{AB \rightarrow C, A \rightarrow D, G \rightarrow A, B \rightarrow EFG\}$

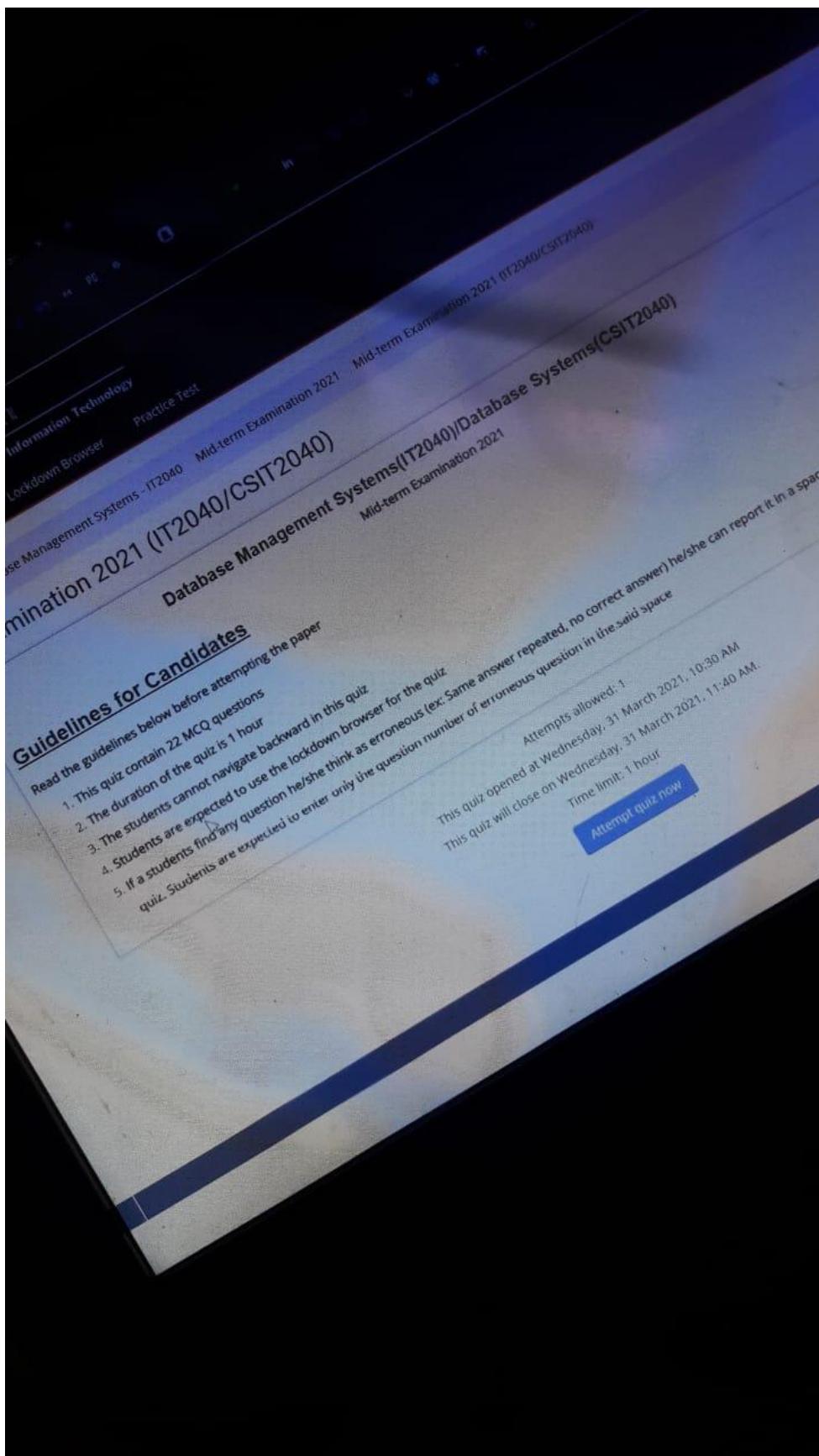


$$R_1 = \underline{A} \ D \quad GA$$

$$R_2 = \underline{B} \ E \ F \ G$$

$$R_3 = AG$$

$$R_4 = BCG$$



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Examinations Lockdown Browser Practice Test

it20026820 Nanayakkara S.

Consider the following relation  
Member (memId, name, address, phone)  
Member\_Hobbies(memId, hobby)

Which of the following query will return the names of the members who have both 'Music' and 'Photography' for hobbies.

Select one or more:

a. Select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby IN('Music','Photography')

b. select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby='Music' and m.memId in  
(select memId from Member\_Hobbies where hobby='Photography')

c. Select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby=ANY('Music','Photography')

d. Select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby='Music' and 'Photography'

e. select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId  
and m.memId in  
(Select memId from Member\_Hobbies where hobby='Photography')  
and m.memId in  
(Select memId from Member\_Hobbies where hobby='Music')

Quiz n

Finish attempt

Time left 0:5:1

1 2  
8 9  
15 16 1  
22  
23

ERROR REPORT

DELL

The image shows a close-up of a Dell laptop keyboard. The keys are clearly visible, including the letters Q, W, E, R, T, Y, U, I, O, P, and the numbers 1 through 0. Below the keyboard, a portion of the laptop's trackpad and the bottom edge of the screen are visible. The screen displays a quiz interface with a question about database queries involving two tables: Member and Member\_Hobbies. The question asks which query returns the names of members with both 'Music' and 'Photography' hobbies. There are five options labeled a through e, each with a checkbox. Options a, b, and e have blue checkmarks, while c and d do not. Option e contains complex SQL code. The background of the image is slightly blurred, showing the rest of the laptop and the surrounding environment.

Mid-term Examination 2021 (IT) x  
netexam.sliit.lk/mod/quiz/attempt.php?attempt=80175&cmid=2466

← → C Lockdown Browser Practice Test

Dashboard Examinations Consider the following ER model.

Question 1 Not yet answered Marked out of 1.0 Flag question

```
graph TD; Booking -- "has" --> ServiceType; ServiceType -- "offers" --> ServiceCenter; ServiceCenter -- "accessible" --> ServiceCenter;
```

The diagram illustrates an Entity-Relationship (ER) model with three main entities: **Booking**, **ServiceType**, and **ServiceCenter**. The **Booking** entity is connected to the **ServiceType** entity via a relationship named **has**, indicated by a line with a diamond symbol. The **ServiceType** entity is connected to the **ServiceCenter** entity via a relationship named **offers**, indicated by a line with a diamond symbol. The **ServiceCenter** entity is connected to itself via a relationship named **accessible**, indicated by a line with a diamond symbol.

Which of the following statements are correct regarding the above ER model?

Dashboard Examinations Lockdown Browser Practice Test

Question 1  
Not yet answered  
Marked out of 1.0  
Flag question

Consider the following relation  
CustomersSales(CustNo, SalesDate, SalesAmount, SalesRepNo, Location)  
with following set of functional dependencies,

$\text{CustNo}, \text{SalesDate} \rightarrow \text{SalesAmount}, \text{SalesRepNo}, \text{Location}$   
 $\text{SalesRepNo}, \text{SalesDate}, \text{SalesTime} \rightarrow \text{CustNo}$   
 $\text{Location}, \text{SalesDate}, \text{SalesTime} \rightarrow \text{SalesRepNo}, \text{CustNo}$

Identify candidate keys in the relation R.

Select one or more:

- a. (CustNo)
- b. (CustNo, SalesRepNo)
- c. (SalesRepNo, SalesDate, SalesTime)
- d. (Location, SalesDate, SalesTime)
- e. (CustNo, SalesDate)

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Dashboard Examinations Lockdown Browser Practice Test

Question 1  
Not yet answered  
Marked out of 1.0  
Flag question

Which of the following are *not* examples for program data independence/semantics between program and data?

Select one or more:

- a. Being able to hide from users where the actual data are stored.
- b. Being able to access data using programs written in different programming languages.
- c. Being able to define which users are able to access data.
- d. Being able to improve the performance of database without affecting the data.
- e. Being able to add columns to a table without effecting user queries.

**Dashboard Examinations Lockdown Browser Practice Test**

**Question 2**  
Not yet answered  
Marked out of 1.0  
 Flag question

Consider the appointments table given below

**Appointments**

Patient	Doctor	appointmentDate
Lakmal	Dr. Janaka	08-01-2020
Nishani	Dr. Sunila	10-01-2020
Bhagya	Dr. Janaka	07-01-2020

What is the output of the following SQL query?

```
SELECT Count(*)  
FROM ( (SELECT Patient, Doctor  
       FROM Appointments) AS S  
INNER JOIN ( SELECT Doctor, appointmentDate  
       FROM Appointments) AS T )
```

Select one:

- a. 6
- b. 3
- c. 5
- d. 9

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**Dashboard Examinations Lockdown Browser Practice Test**

**Question 3**  
Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following description

There are three kinds of doctors namely pediatricians, physicians and dermatologists. They are assigned with unique IDs for identification. The system also maintains first name, last name, age, phone number and their hospital information. Hospital information includes the name of the hospital, hospital location, address and location of the hospital. A doctor can work in several hospital in part time basis. Patients register in the system by providing their first name, last name, address, phone number and the system assigns an ID for each patient. A doctor can diagnosis several diseases in patients. All diagnosis should be recorded over the doctor diagnosis table.

Which of the following statements are correct with respect to the above description.

Select one or more:

- a. There are four main entities in the description
- b. Diagnosis is a descriptive attribute
- c. The EER diagram for the above scenario contains only binary relationships
- d. It is possible to put doctor and patient under the same ISA hierarchy
- e. Doctor entity can have a type attribute to store their specialization such a "Dermatologist"

**Question 1**

yet answered

marked out of 1.0

Flag question

Which of the following is/are intension(s) of a database developer during the requirement collection and analysis phase?

Select one or more:

- a. Finding the names of the people who will be developing the applications to access the database
- b. Finding relationships among data in the organization
- c. Finding data to be stored in the organization
- d. Identify the number of concurrent users who will be using the database
- e. Identify different types of data retrievals to be performed on the database

**Next page****Answered**

of 1.0

Question

Consider the following table :

Emp (eId, ename, designation, salary, deptName)

Consider the following SQL query on the emp table above:

```
select deptName
from Emp
where designation = 'Manager'
group by deptName
having avg (salary) > (select avg (salary) from Empl)
```

It returns the names of the department in which

Select one:

- a. the average salary of managers is more than the average salary of all male employees in the company
- b. the average salary of managers is more than the average salary in the company
- c. the average salary is more than the average salary in the company
- d. the average salary of managers is more than the average salary of employees in the same department

**Next page**

Consider the following description:

A university has two types of rooms namely lecture halls and laboratories. Lecture halls have a capacity and a number of resources such as whiteboard, podium and projector. Laboratory classes also have a capacity and number of resources. These are located in different buildings in the campus known by names such as 'Block A', 'Block B' and 'Block C'. Each room has a number unique to each building. There are batches taken to the universities. They are identified by the intake year and intake name (for ex: 2021 Regular intake). A batch may have several groups such as G1, G2, G3 & etc. Each group has number of students and group name is unique within each batch. During time tabling, rooms are allocated for groups to conduct classes related to. The class name(such as 'lecture' and 'tutorial'), start time and the end time where the room will be ha should be recorded.

Which of the following are true related to the above :

Select one or more:

- a. The type of the rooms could be represented using sub classes
- b. The type of the rooms could be represented as an attribute
- c. There are only strong entities in this description
- d. If building is an entity room will be a weak entity
- e. Resources could be tracked using a multi-valued attribute

[Next page](#)

Academic\_Staff (SID, FacultyID, FacultyLocation, FacultyPhone, StaffName, StaffPosition, HoursPerWeek)  
with following functional dependencies.

SID  $\rightarrow$  StaffName, StaffPosition, FacultyID, FacultyLocation, FacultyPhone

FacultyID  $\rightarrow$  FacultyLocation, FacultyPhone

FacultyLocation  $\rightarrow$  FacultyID, FacultyPhone

FacultyPhone  $\rightarrow$  FacultyID, FacultyLocation

What is the current normal form of Academic\_Staff?

Select one:

- a. Unnormalized form
- b. 2NF
- c. 1NF
- d. 2NF
- e. BCNF

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Examinations

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Practice Test

Answered  
out of 1.0  
of question

Consider the following SQL query:  

```
SELECT e.emp_id, e.dno, d.name, e.salary
FROM Emp e, Dept d
WHERE e.dno = d.dept_id;
```

Which of the following SQL statements produce the same output as the SQL query above?

Select one:

- a. 

```
SELECT emp_id, dno, d.name, salary
FROM Emp e INNER JOIN Dept d ON e.dno = d.dept_id;
```
- b. 

```
SELECT e.emp_id, e.dept_id, d.name, e.salary
FROM Emp LEFT OUTER JOIN Dept;
```
- c. 

```
SELECT e.emp_id, e.dno, d.name, e.salary
FROM Emp
WHERE dept_id IN (SELECT dept_id FROM Dept);
```
- d. None of the above
- e. 

```
SELECT emp_id, dept_id, d.name, Salary
FROM Emp e JOIN Dept d USING (e.dept_id, d.dept_id);
```

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Search

Mid-term Examination 2021 (17) X

← → C netexam.slt.lk/mod/quiz/attempt.php?attempt=804578&cmid=2466

Sri Lanka Institute of Information Technology

Dashboard Examinations Lockdown Browser Practice Test

Question 1 Not yet answered Marked out of 1.0 Flag question

Consider the following relational schema:

Doctor (ddi, name, specialization)  
Patient (pid, pname, docid, diagnosis)

docid is a foreign key referring to did of the Doctor relation. Assume that each doctor diagnose at least one patient. What does the following query return?

```
employeeempid, 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 name  
FROM Doctor d  
WHERE NOT EXISTS (SELECT pname  
FROM Patient p  
WHERE p.docid = d.did AND d.diagnosis => 'Fever')
```

Select one:

a. Names of all the doctors with all their patients having fever.  
 b. Names of all the doctors with none of their patients having fever.  
 c. Names of all the doctors with at least one of their patients having fever.  
 d. Names of all the doctors with at most one of their patient having fever.

10:34 AM 3/17/2021

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Consider the following three table to store student enrollements in different courses.

Student(EnrollNo, Name)

Course(CourseID, Name)

EnrollMents(EnrollNo, CourseID)

What does the following query do?

```
SELECT S.Name  
FROM Student S, Course C, Enrollments E  
WHERE S.EnrollNo = E.EnrollNo AND  
C.Name = "DBMS" AND  
E.CourseID = C.CourseID AND  
S.EnrollNo IN (SELECT S2.EnrollNo  
FROM Student S2, Course C2, Enrollments E2  
WHERE S2.EnrollNo = E2.EnrollNo AND  
E2.CourseID = C2.CourseID  
C2.Name = "OS")
```

Select one:

- a. Name of all students who are either enrolled in "DBMS" or "OS" courses
- b. Name of all students who are either enrolled in "DBMS" or "OS" or both.
- c. Name of all students who are enrolled in "DBMS" and "OS"
- d. Name of all students who are enrolled in "DBMS"

Dashboard Examinations Lockdown Browser Practice Test

it20253912 Sahassara, M.B.C it20253912 10

**Question 2**  
Not yet answered  
Marked out of 1.0  
 Flag question

The following questions is based on a relation  
`Emps (empID, ssNo, name, mgrID)`  
 which stores employee ID (assumed unique), social-security number (also unique), name (not necessarily unique) for employees and the employee ID of the manager of the employee.  
 Assume that the president is his/her own manager, so every employee has a unique manager. You may assume there are no duplicate tuples in this relation.  
 Suppose we wish to find the ID's of the employees that are managed by people who are managed by the employee with ID 123. Here are two possible queries:

```

1. SELECT ee.empID
   FROM Emps ee, Emps ff
   WHERE ee.mgrID = ff.empID AND ff.mgrID = 123;
2. SELECT empID
   FROM Emps
   WHERE mgrID IN
        (SELECT empID FROM Emps WHERE mgrID = 123);
  
```

Which, if any, of the two queries above will correctly (in SQL) get the desired set of employee ID's?

Select one:

- a. II only
- b. Query can't represent in SQL
- c. Neither I nor II
- d. I only
- e. Both I and II

**Quiz navigation**

Finish attempt ...  
 Time left: 0:56:08

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22					

**ERROR REPORTING**  
 23

Question 1  
Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following ER model.

```

classDiagram
    class Booking {
        bookinId
        location
        dateTime
    }
    class ServiceType {
        shumber
        Type
        cost
    }
    class ServiceCenter {
        serviceNo
        phone
        name
    }

    Booking "1" -- "N" ServiceType : has
    ServiceType "N" -- "3" ServiceCenter : offers
  
```

Which of the following statements are correct related to mapping the above ER model to the relational model.

Select one or more:

- a. There are 5 foreign keys for the relation Service type
- b. The degree of the ServiceType relation is 5
- c. Booking has the foreign key seviceNo
- d. Booking relation has the degree 4
- e. The degree of the ServiceCenter relation is 3

it201223

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Examinations Lockdown Browser Practice Test

2 answered 1.0 out of 1.0 flag question

Consider the following table:  
Emp (eid, ename, designation, salary, did)  
Consider the following relational query on the Emp table above:

```
SELECT salary  
FROM Emp e1  
WHERE 2 = (  
    SELECT COUNT(DISTINCT (e2.salary))  
    FROM Emp e2  
    WHERE e2.salary > e1.salary  
)
```

Which one of the following is the correct interpretation of the above query?

Select one:

- a. find the 3rd highest salary from table
- b. find the highest salary from table
- c. find the 2nd highest salary from table
- d. find the 4th highest salary from table

Mozilla Firefox seems slow... to... start.

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SLT Broadband Portal X Mid-term Examination 2021 (IT) X insulation between program and X Insulation between Program and X Basic Concepts of ER Data Model X

netexam.sliit.lk/mod/quiz/attempt.php?attempt=80443&cmid=24665&page=3

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Dashboard Examinations Lockdown Browser Practice Test I20089436 Senarathine S.M.A.D I20089436 10:45:07

**Question 4**  
Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following ER model. What are the tables in the final relational model?

```

    erDiagram
        {
            entity Room {
                string roomID
                string noOfBeds
                string description
                string phone
            }
            entity RoomPhone {
                string roomID
                string phone
            }
            entity Reservation {
                string resID
                string in_date
                string out_date
                string roomID
            }
            entity User {
                string userID
                string staffID
            }
            entity Staff {
                string staffID
            }
        }
        Room }o--o RoomPhone : Room
        Room }o--o Reservation : Room
        RoomPhone }o--o Room : Room
        Reservation }o--o Room : Room
        User }o--o Room : Room
        Staff }o--o Room : Room
    }
  
```

Select one:

- a. Room (roomID, noOfBeds, description)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date)  
Has (roomID, resID)
- b. Room (roomID, noOfBeds, description)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date, roomID)  
Has (roomID, resID)
- c. Room (roomID, noOfBeds, description)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date)  
Has (roomID, resID)
- d. Room (roomID, noOfBeds, description, phone)  
Reservation (resID, in\_date, out\_date)  
Has (roomID, resID)
- e. Room (roomID, noOfBeds, description, resID)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date)

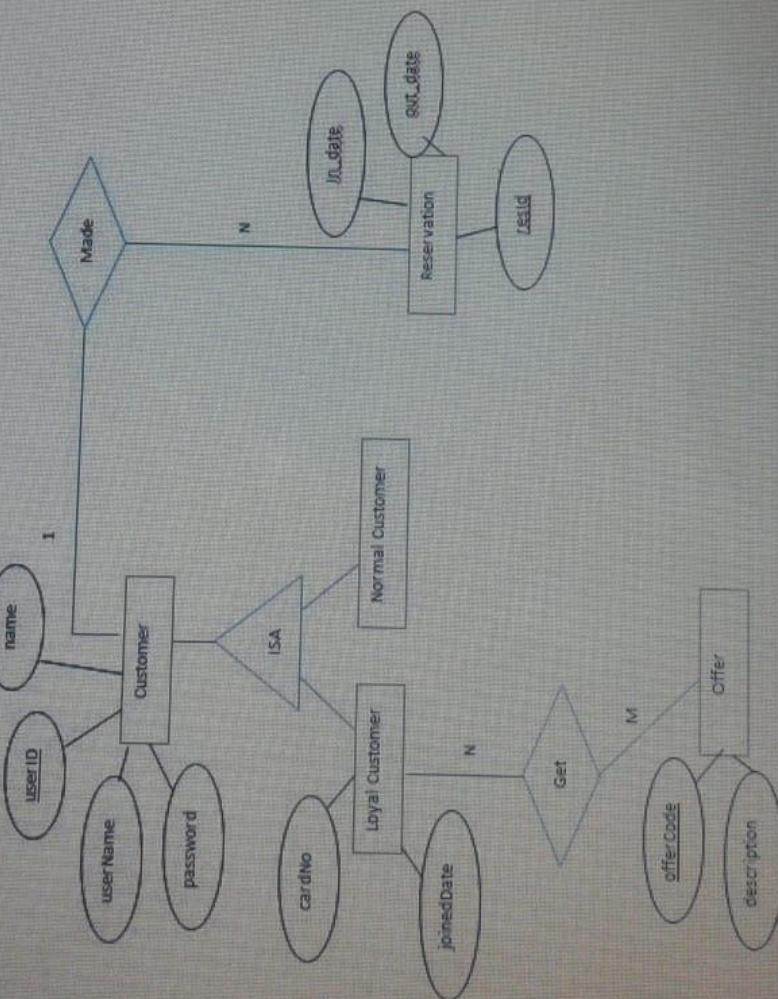
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Which of the following statements are true related to constraints?

Select one or more:

- a. When an entity instance may be a member of multiple subtypes or it does not have to be a member of subtype the specialization is overlapping and total.
- b. When an entity belongs to only one sub type in the hierarchy the relationship is total and disjoint.
- c. A bowler and batsman(assume wicket keeper is also a batsman) which are sub types of a cricketer type total and disjoint
- d. If a subtype participates in a relationship that is the same as the other subtypes that relationship could be added to the super type

Consider the following EER diagram. Note that loyal customer and normal customer cover customer.



Which option below is the most appropriate mapping for the ISA hierarchy?

Which option below is the most appropriate mapping for the ISA hierarchy?

Select one:

- a. Option 1 and Option 4
- b. Option 4
- c. Option 2
- d. Option 3
- e. Option 1

Mid-term Examination 2021 (IT)    SQL INSERT INTO Statement

←    Apps    Translate    netexam.sliit.lk    courseweb    Lockdown Browser    REPLIT    Eduscope    WhatsApp    YouTube    Gmail

Dashboard    Examinations    Lockdown Browser    Practice Test

**Question 10**  
Not yet answered  
Marked out of 1.0  
Flag question

Consider the following ER model. What are the tables in the final relational model?

```
graph TD; LC[Loyal Customer] -- joinedDate --> G[Get]; G -- M --> O[Offer]; LC --> cardNo; O --> description; G -- offerCode --> OC[offerCode]
```

Select one:

- a. Loyal Customer (cardNo, joinedDate)  
Offer (offerCode, description)  
Get (cardNo, offerCode)
- b. Loyal Customer (cardNo, joinedDate, offerCode)  
Offer (offerCode, description)
- c. Loyal Customer (cardNo, joinedDate)  
Offer (offerCode, description, cardNo)
- d. Loyal Customer (cardNo, joinedDate)  
Get (cardNo, offerCode)
- e. Loyal Customer Offer (cardNo, offerCode, joinedDate, description)

SLT Broadband Portal X Mid-term Examination 2021 (IT) X insulation between program and X Insulation between Program and X Basic Concepts of ER Data Model X

netexam.sliit.lk/mod/quiz/attempt.php?attempt=80443&cmid=24668&page=6

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**Question 7**  
Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following ISA hierarchy.

Which of the following statements are incorrect related to mapping the above hierarchy to the relational model.

Select one or more:

- a. Option 3 and 4 will result in null values
- b. Option 4 is not suitable
- c. Option 3 and 4 would have created relation for Person
- d. Option 2 is more suitable
- e. Option 1 would have created relations for Person, Staff and Customer

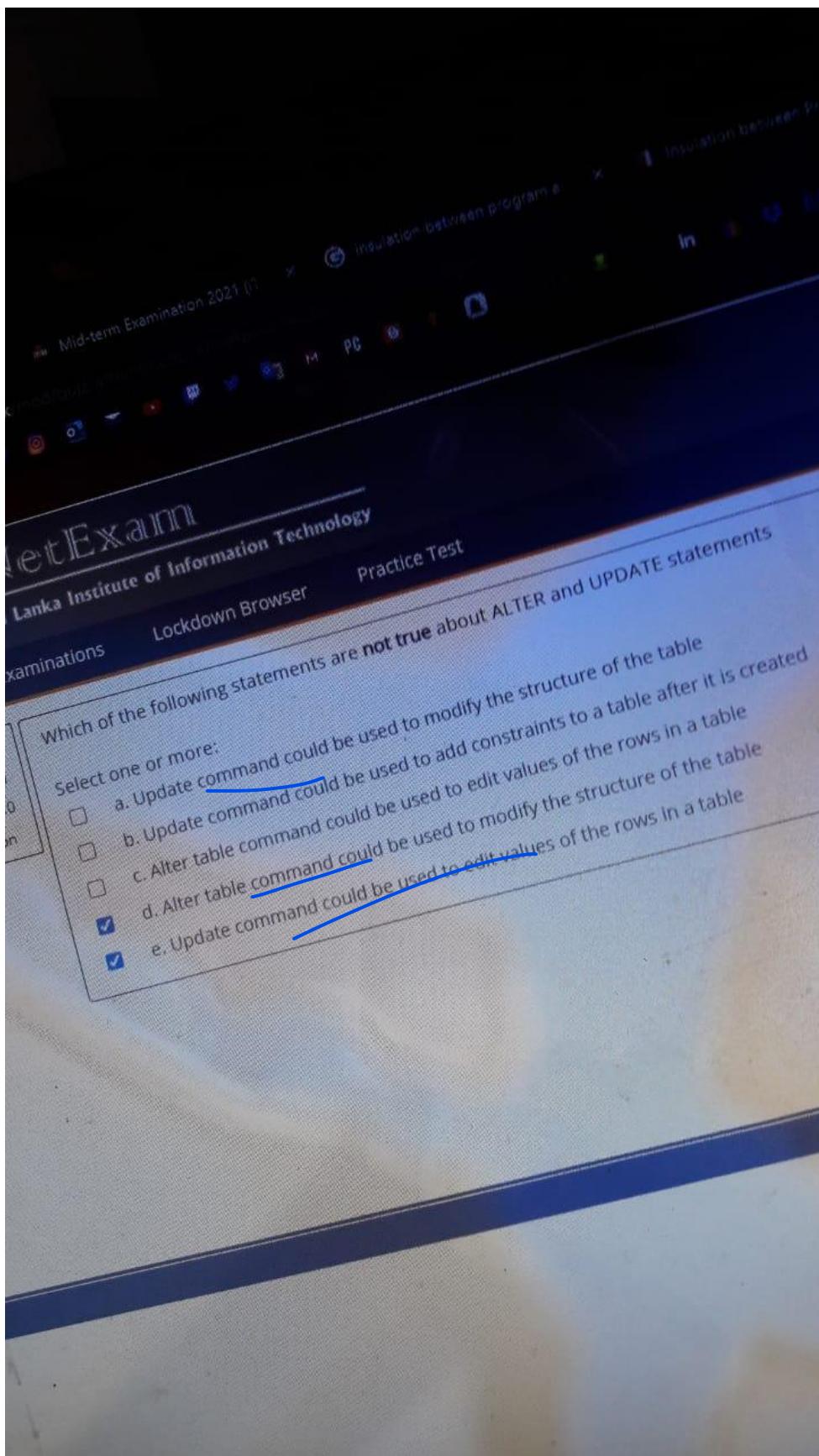
Quiz navigation

Finish attempt ...  
Time left 0:35:02

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21	22								

ERROR REPORTING  
 23

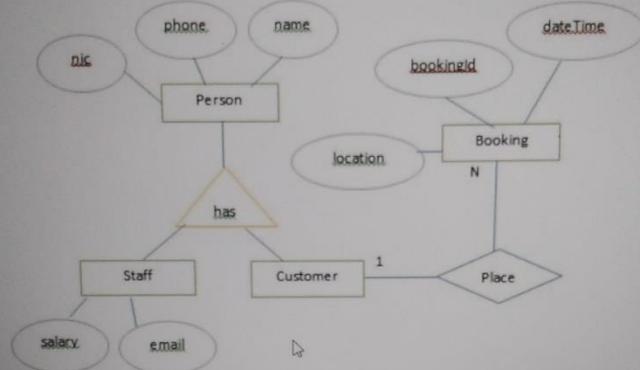
[Next page](#)



**Question 12**

Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following EER diagram.



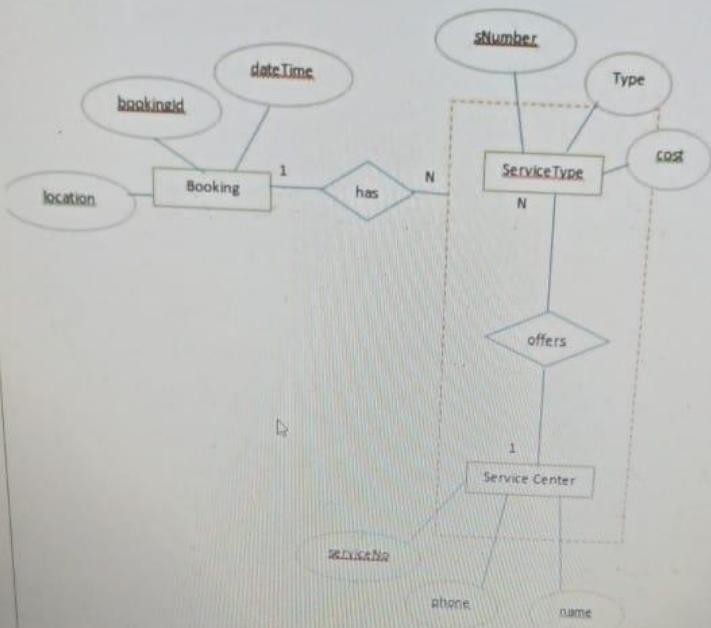
Which option below is the most appropriate mapping for the ISA hierarchy?

Select one:

- a. Option 4
- b. Option 1
- c. Option 2
- d. Option 3
- e. Option 1 and Option 4



Consider the following ER model.



Which of the following statements are correct related to mapping the above ER model to the relational model?

Select one or more:

- a. There are 5 foreign keys for the relation `Service type`
- b. `Booking` has the foreign key `serviceNo`
- c. The degree of the `ServiceType` relation is 5

Suppose relation  $R(A, B)$  currently has tuples  $\{(1, 2), (1, 3), (3, 4)\}$  and relation  $S(B, C)$  currently has  $\{(2, 5), (4, 6), (7, 8)\}$ . Then the number of tuples in the result of the SQL query:

Select \* From R Left Outer Join S on (R.B = S.B);

is:

Select one:

- a. 2
- b. 6
- c. 3
- d. 5
- e. 4

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Quiz nav

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ERROR REF

4  
Answered  
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question

Which of the following is true related to ISA relationships?

Select one or more:

- a. A shape object with circle, rectangle and triangle as sub types is an example for a total participation
- b. A sub type of a ISA hierarchy can has its own key
- c. The hierarchy in which each entity participates in only one subclass relationship is classified as disjoint
- d. If subtypes are overlapping the participation constraint must be partial

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Examinations Lockdown Browser Practice Test

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stion

Consider the following three table to store student enrolments in different courses.  
Student(EnrollNo, Name)  
Course(CourseID, Name)  
EnrollMents(EnrollNo, CourseID)

What does the following query do?

```
SELECT S.Name  
FROM Student S, Course C, Enrollments E  
WHERE S.EnrollNo = E.EnrollNo AND  
C.Name = "DBMS" AND  
E.CourseID = C.CourseID AND  
S.EnrollNo IN (SELECT S2.EnrollNo  
FROM Student S2, Course C2, Enrollments E2  
WHERE S2.EnrollNo = E2.EnrollNo AND  
E2.CourseID = C2.CourseID  
C2.Name = "OS")
```

Select one:

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Examinations Lockdown Browser Practice Test

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Consider the following relation R (R M, N, O, P, Q)  
with following set of functional dependencies,  
 $F = \{ N \rightarrow M, M \rightarrow O, NO \rightarrow P, MO \rightarrow NQ \}$

What is the current normal form of given relation?

Select one:

- a. BCNF
- b. Unnormalized form
- c. 2NF
- d. 1NF
- e. 3NF

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Examinations Lockdown Browser Practice Test

22 answered 1 out of 1.0 question

ID	Name	Age
12	Jagath	60
15	Nilmini	34
99	Amaya	25

PostGrad

ID	Name	Age
15	Nilmini	24
25	Saman	40
75	Amaya	30
99	Amaya	25

UnderGrad

Consider the above tables on PostGrad and UnderGrad tables

```
SELECT p.ID  
FROM PostGrad p  
WHERE p.age > ALL (SELECT u.age  
    FROM undergrad u  
    WHERE u.name = "Amaya")
```

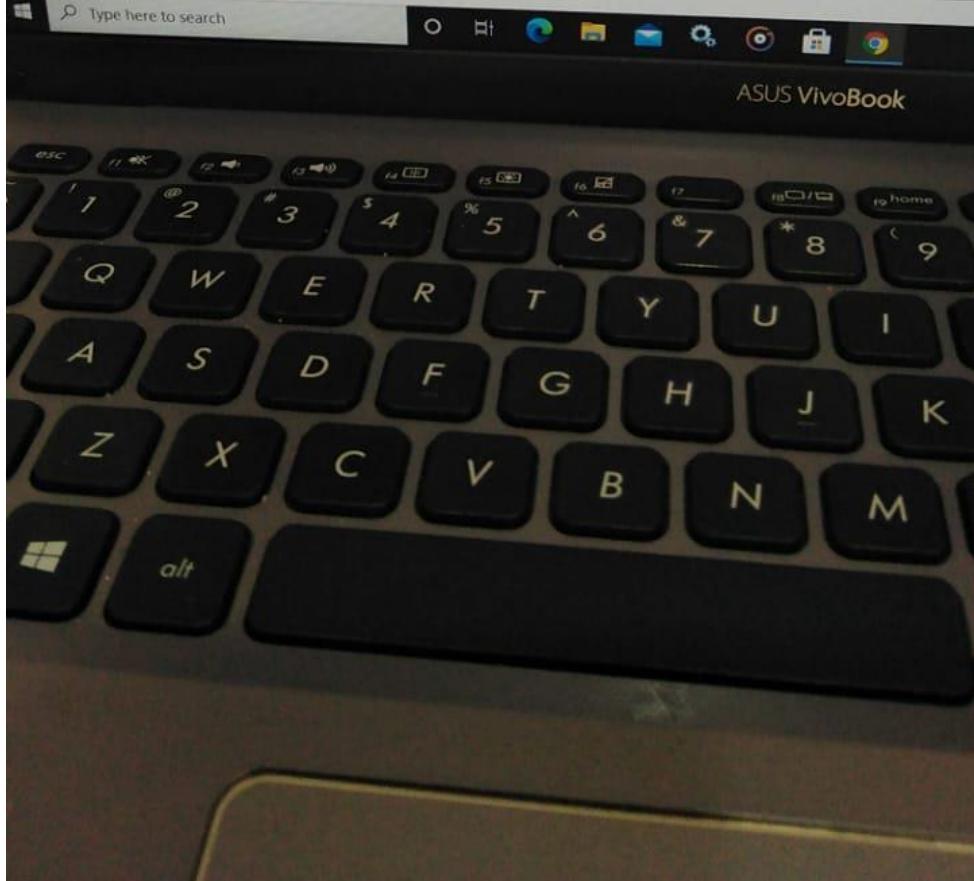
How many tuples will be there in the result after executing the above query?

Select one:

- a. 3
- b. 1
- c. 4
- d. 2

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ASUS VivoBook



Consider the following relation R (R M, N, O, P, Q)

with following set of functional dependencies,

$$F = \{ N \rightarrow M, \quad M \rightarrow O, \quad NO \rightarrow P, \quad MO \rightarrow NQ \}$$

What is the current normal form of given relation?

Select one:

- a. BCNF
- b. Unnormalized form
- c. 2NF
- d. 1NF
- e. 3NF

on 2021 (IT202) Google Translate

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# NetExam

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Examinations Lockdown Browser Practice Test it202

Consider the tables given below:

Student (sid, sname, age )  
Grades (sid, cid, grade)

Student table stores information of all students. Grades table contains grades the students have obtained for each course he/she had completed.

Which of the following queries would produce the names of the students who had not completed any course yet.

Select one or more:

a. select s.sname  
from student s LEFT OUTER JOIN Grades g  
where g.sid is NULL

b. select sname  
from Student  
where sid not IN (select sid in grades)

c. select s.sname  
From student s, Grades g  
where s.sid=g.sid  
group by s.sid  
having count(\*)=0

d. select s.sname  
from student s  
where NOT EXISTS (select \* from Grades g where g.sid=s.sid)

e. None of the above

sure nehe

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Mid-term Examina...

**Question 18**

Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following requirements of a construction company:

Company have multiple construction sites. Each site has a unique site number, address and construction type such as('house', 'apartment', 'shopping complex'). For each site the company estimates the number the amounts required from each raw-material and these values are stored(ex: cement packs, sand, & etc.). Raw-materials have three different types such as wall-construction materials, wiring materials, Roofing materials and timber materials. Each material is identified by a unique ID and has a unit of measurement such as liters and kilograms. There are many suppliers providing raw materials for construction companies. The suppliers have are identified by a unique supplier id and each supplier has a name, address and a phone number. These are tracked by the construction company. However, during the construction company may purchase different amount of raw-materials for a site from different suppliers at different prices.

Which of the following are correct related to the EER diagram drawn for the above description.

Select one or more:

- a. There are only binary relationships in the diagram
- b. There is a ternary relationship in the diagram
- c. Company is a strong entity in the EER
- d. There is a binary relationship between site and material with a descriptive attribute
- e. Raw material types could be represented by sub classes

[Next page](#)

Examinations    Lockdown Browser    Practice Test

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An item table of a supermarket stores the itemNumber, description, item Price, Quantity available and re-order level. Which of the following is true with respect to above table.

Select one or more:

- a. DBMS cannot allow multiple cashiers to access to table to update the quantity in hand.
- b. DBMS can be configured in a manner that registered customers can only view the item descriptions and prices
- c. DBMS can be configured in a manner that only the manager can change the price of an item
- d. DBMS cannot be allow multiple cashiers to access the table to see the price of items as the same time
- e. DBMS can be configured in a manner that item numbers cannot be duplicated

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Consider the following relation

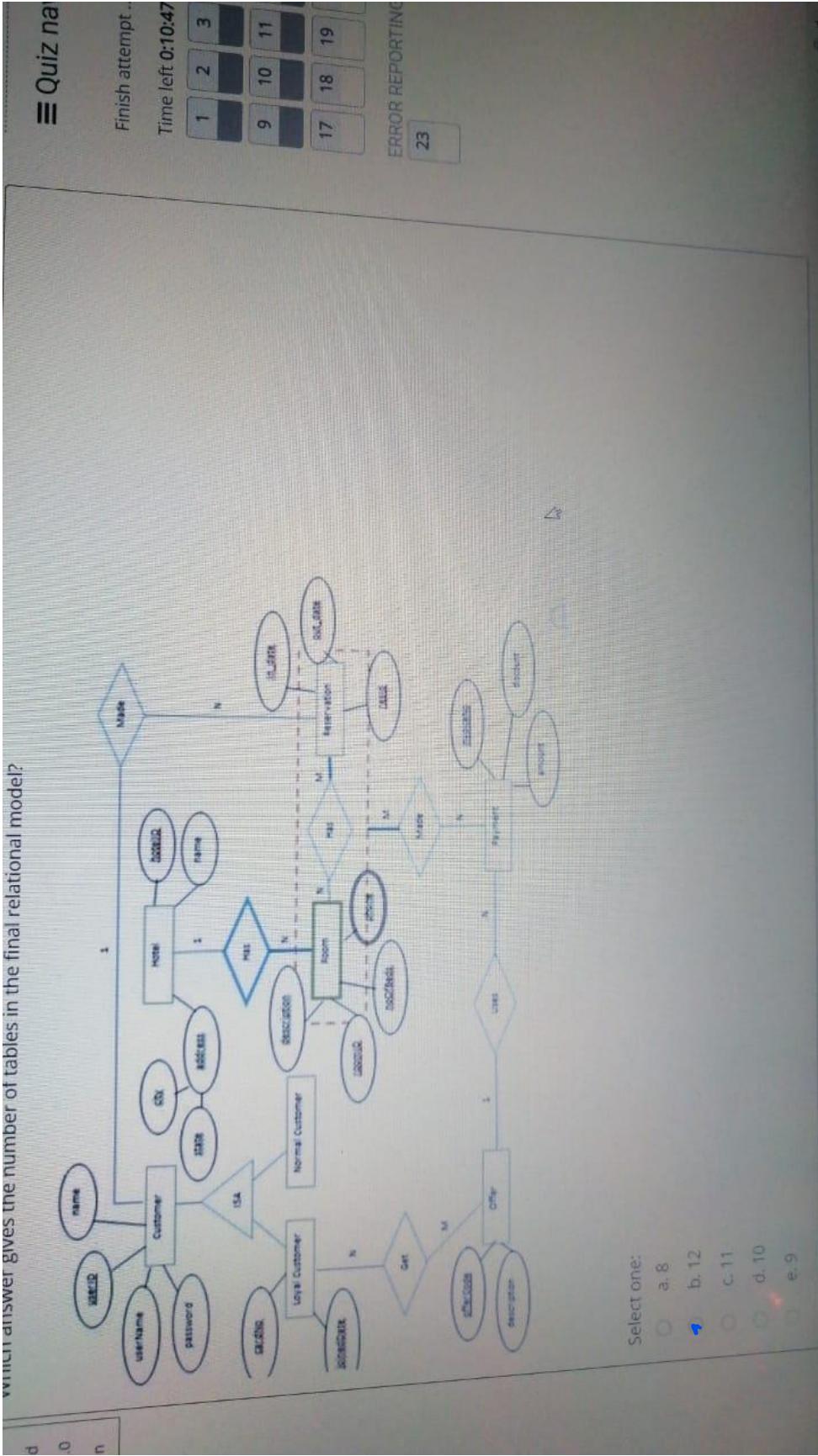
R (A, C, E, G, I, K, L, N, P, Q) with following set of functional dependencies  
 $\{AC \rightarrow E, A \rightarrow GI, C \rightarrow K, K \rightarrow LN, G \rightarrow PQ\}$

Identify candidate keys in the relation R.

Select one or more:

- a. AC
- b. G
- c. C
- d. A
- e. K

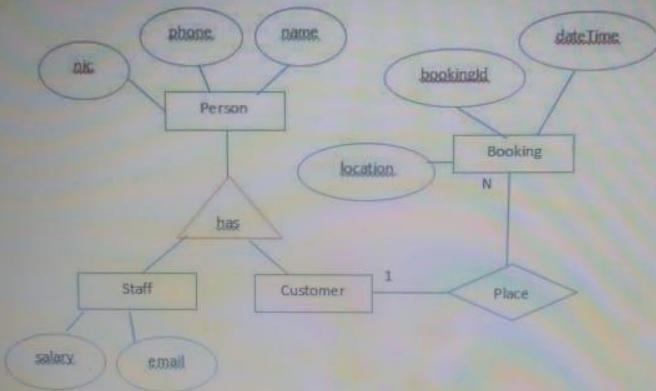
Which answer gives the number of tables in the final relational model?



Not yet answered

Marked out of 1.0

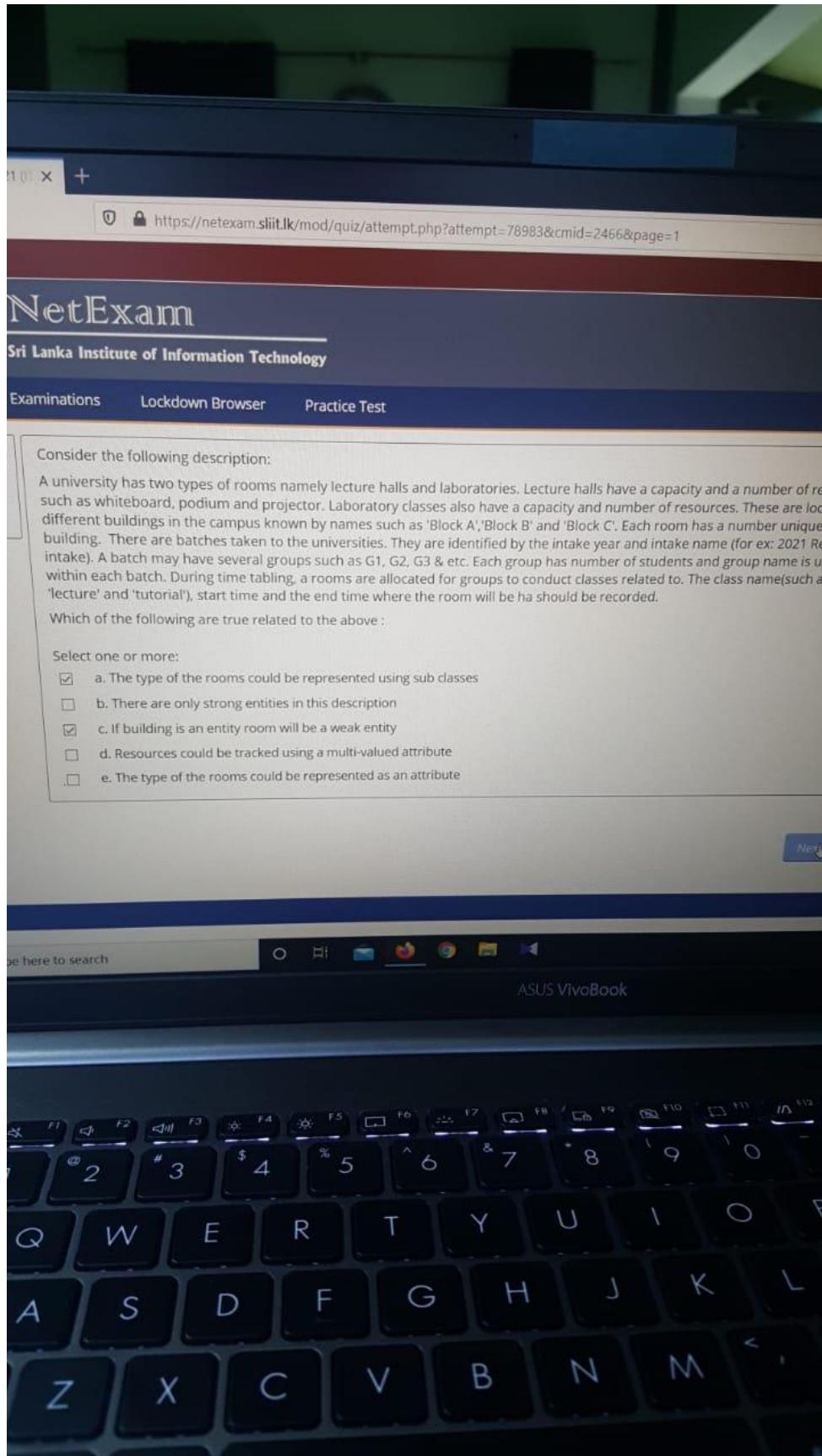
Flag question



Which option below is the most appropriate mapping for the ISA hierarchy?

Select one:

- a. Option 4
- b. Option 1 and Option 4
- c. Option 1
- d. Option 3
- e. Option 2



Which of the following is true about the HAVING clause?

Select one or more:

- a. HAVING clause only contain conditions containing aggregate functions
- b. Acts like a WHERE clause but is used for columns rather than groups.
- c. Acts like a WHERE clause but is used for groups rather than rows.
- d. HAVING clause can contain any SQL statement
- e. Acts like a WHERE clause but is used for rows rather than columns.

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# NetExam

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Examinations Lockdown Browser Practice Test

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Section:

Consider the following relational schemes,  
Car (Number, Owner, ChassisNo, Model, Year, Price)  
Registration (Number, Owner, ChassisNo)  
with following functional dependencies:  
  
I. Number, Owner  $\rightarrow$  ChassisNo  
II. ChassisNo  $\rightarrow$  Number, Owner, Model, Year  
III. Model, Number, Year  $\rightarrow$  Price  
Assume {Number, Owner} is the key for both schemes.

What is the current normal form of Car?

Select one:

a. 2NF  
 b. 1NF  
 c. 3NF  
 d. Unnormalized form  
 e. BCNF

ASUS VivoBook

Flag question

```

classDiagram
    class Customer {
        name
        ID
        username
        password
    }
    class LoyalCustomer {
        cardio
    }
    class NormalCustomer {
        joinedDate
    }
    Customer <|-- LoyalCustomer
    Customer <|-- NormalCustomer
    LoyalCustomer "1..2" --> "M" Offer : Get
    LoyalCustomer "N" --> "M" Offer : OfferCode
    class Offer {
        description
    }
  
```

Which option below is the most appropriate mapping for the ISA hierarchy?

Select one:

- a. Option 4
- b. Option 1
- c. Option 2
- d. Option 1 and Option 4
- e. Option 3

Consider the following relation

`Sales(productId, customerId, Qty, salesDate)`

Which of the following query finds the id of the product from which at least 50 items are sold every time a sale is done.

Select one or more:

- a. select productId  
from Sales  
group by productId  
having qty>50
- b. select productId  
from Sales  
group by productId  
having Min(qty)>=50
- c. select s1.productId  
from Sales s1  
where 50<= ALL(select qty from Sales s2 where s1.pid=s2.pid)
- d. select productId  
from sales  
where qty>50
- e. select productId  
from Sales  
where 50<= ALL(select qty from Sales )

Consider the following ER model.

```

    erDiagram
        {
            string bookingId;
            string location;
            string dateTime;
            string slumber;
            string Type;
            number cost;
            string serviceNo;
            string phone;
            string name;

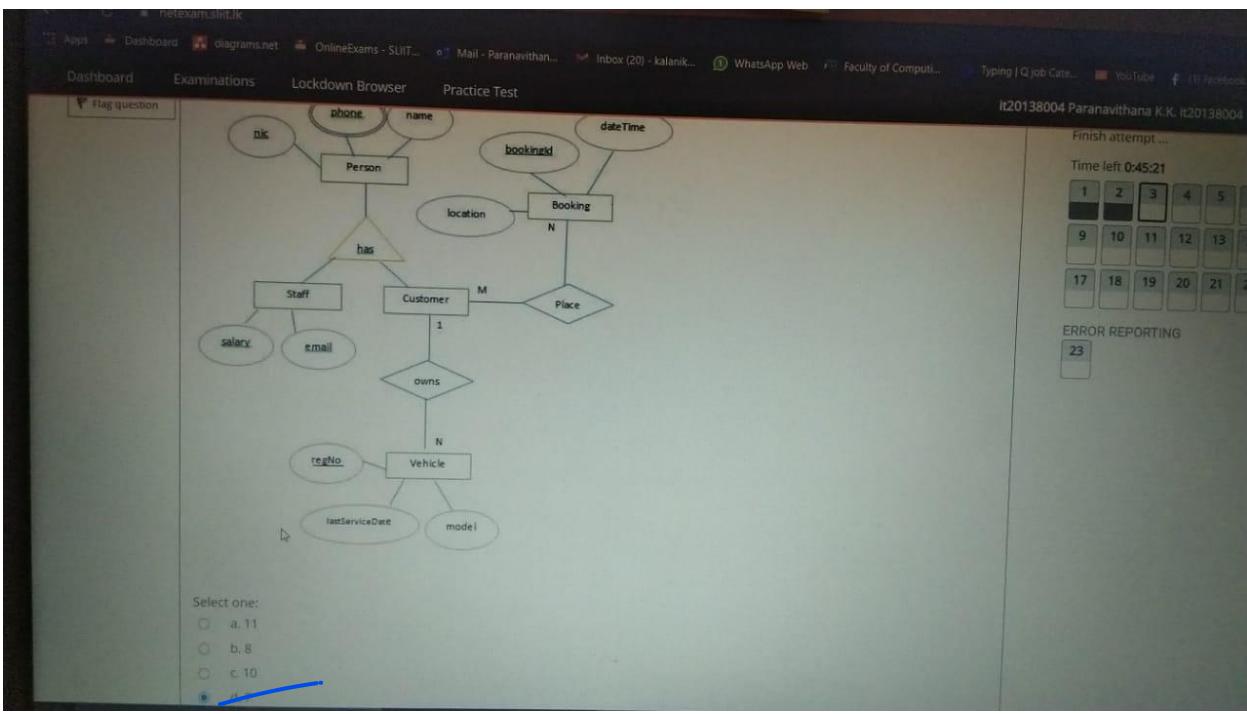
            entity Booking {
                bookingId {
                    primary key;
                }
                location;
                dateTime;
            }
            entity ServiceType {
                slumber;
                Type;
                cost;
            }
            entity ServiceCenter {
                serviceNo;
                phone;
                name;
            }

            Booking }o--o{ ServiceType : has
            ServiceType }o--o{ ServiceCenter : offers
        }
    
```

Which of the following statements are incorrect related to mapping the above ER model to the relational model?

Select one or more:

- a. serviceNo is a foreign key in the serviceType relation
- b. sNumber is a foreign key in the Service Center relation



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Dashboard Examinations Lockdown Browser Practice Test

it1814

**Question 1**  
Not yet answered  
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Flag question

Which of the following query will result in an error?

Select one or more:

- a. select dept\_id, avg(salary) from employees group by dept\_id
- b. select dept\_id, count(name) from employees
- c. select avg(salary) from employees group by dept\_id
- d. select dept\_id, job\_id, avg(salary) from employees group by dept\_id, job\_id
- e. select eid from employees where salary>avg(salary)

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Question 5  
Not yet answered  
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Examinations Lockdown Browser Practice Test

it20138004 Paranavithana K.K. It2013

Which of the following statements are **not true** about ALTER and UPDATE statements

Select one or more:

a. Alter table command could be used to modify the structure of the table

b. Update command could be used to modify the structure of the table

c. Update command could be used to edit values of the rows in a table

d. Alter table command could be used to edit values of the rows in a table

e. Update command could be used to add constraints to a table after it is created

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Quiz navigation

Finish attempt...  
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ERROR REPORTING				
23				

NetExam  
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Examinations Lockdown Browser Practice Test

it20138004 Paranavithana K.K. It2013

Which of the following statements are true related to constraints?

Select one or more:

a. If a subtype participates in a relationship that is the same as the other subtypes that relationship could be added to the super type

b. When an entity belongs to only one sub type in the hierarchy the relationship is total and disjoint.

c. A bowler and batsman(assume wicket keeper is also a batsman) which are sub types of a cricketer type is total and disjoint

d. When an entity instance may be a member of multiple subtypes or it does not have to be a member of a subtype the specialization is overlapping and total.

Next page

Quiz navigation

Finish attempt...  
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Question 4

Not yet answered

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Flag question

Practice TEST

It20138004 Paranalitha

Quiz 1

Finish attempt

Time left 0:35

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ERROR REPORT  
23

Consider the following EER diagram:

```

    erDiagram {
        entity College {
            string Name
            string country
            string CollegeID
        }
        entity Course {
            string CourseNo
            string Name
            number Credits
        }
        entity Student {
            string ID
        }
        many-to-many "Offer" {
            College } M {
            Course } N {
                foreignKey inquiryDate
                foreignKey ID
            }
        many-to-many "Inquiry" {
            Course } N {
            Student } M {
                foreignKey inquiryDate
                foreignKey ID
            }
        many-to-many "Register" {
            Course } 1 {
            Student } N {
                foreignKey ID
            }
    }
  
```

Which of the following is true related to the above diagram?

Select one or more:

- a. Each course has a course number which is unique for each college
- b. Each course in the system has an unique course no
- c. Students may inquire about multiple courses offered by colleges
- d. There can be courses with no students
- e. Even though student may inquire about many course offerings he might not register to any course

Next page

Navigator    x    Mid-term Examination 2021 (IT2)    x    +

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Examinations    Lockdown Browser    Practice Test

Answered  
of 1.0  
question

Consider a relation Emps as follows

```
Emps (empID, ssNo, name, dID)
dID is a foreign key which references deptID column of the Depts table
```

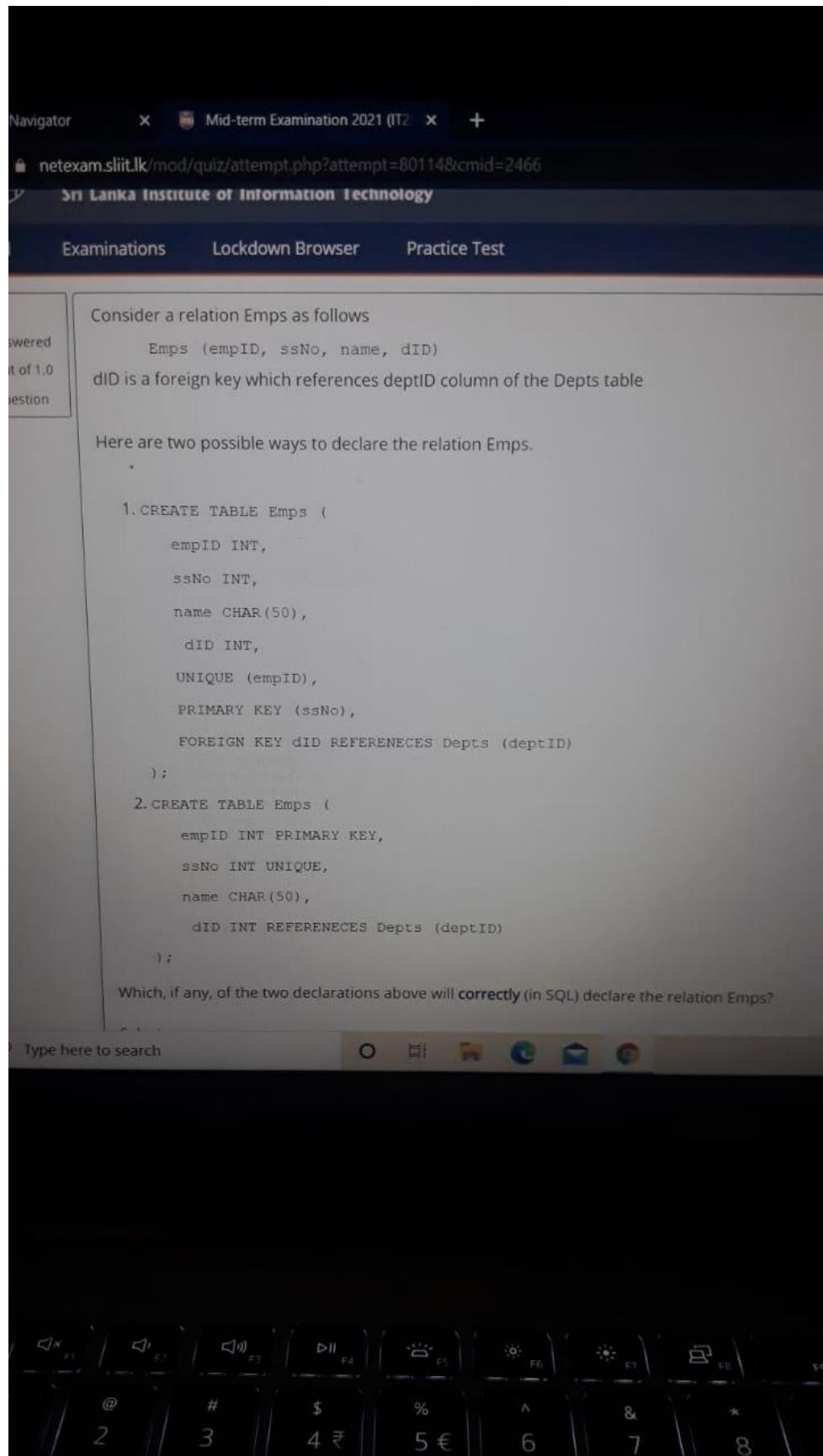
Here are two possible ways to declare the relation Emps.

```
1. CREATE TABLE Emps (
    empID INT,
    ssNo INT,
    name CHAR(50),
    dID INT,
    UNIQUE (empID),
    PRIMARY KEY (ssNo),
    FOREIGN KEY dID REFERENCES Depts (deptID)
);

2. CREATE TABLE Emps (
    empID INT PRIMARY KEY,
    ssNo INT UNIQUE,
    name CHAR(50),
    dID INT REFERENCES Depts (deptID)
);
```

Which, if any, of the two declarations above will correctly (in SQL) declare the relation Emps?

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Consider the following table definition

```
Create table Product
(
    pid char(4) primary key,
    pname varchar(30),
    manufactureDate datetime default getdate(),
    Qty int,
    constraint pid_chk CHECK (pid Like '[P|S|T][0-5][0-5][0-5]'),
    constraint qty_chk CHECK (qty>0)
)
```

Which of the following statements are true related to the above definition

Select one or more:

- a. T12 is a valid pid that could be stored in the Product table
- b. Consider a product with a quantity (qty) of 10. Update table written to deduct 15 from the available quantity in the above table will not be successful.
- c. After executing the following insert statement in the above table the row inserted will have two null values  
Insert into Product(pid,qty) values ('T000',50)
- d. P333 is a valid pid that could be stored in the Product table
- e. Executing the following Insert statement will cause an error to occur  
Insert into Product(pid,qty) values ('T000',50)

```
WHERE S.EnrollNo = E.EnrollNo AND
    C.Name = "DBMS" AND
    E.CourseID = C.CourseID AND
    S.EnrollNo IN (SELECT S2.EnrollNo
        FROM Student S2, Course C2, Enrollments E2
        WHERE S2.EnrollNo = E2.EnrollNo AND
            E2.CourseID = C2.CourseID
            C2.Name = "OS")
```

Select one:

- a. Name of all students who are enrolled in "DBMS"
- b. Name of all students who are either enrolled in "DBMS" or "OS" courses
- c. Name of all students who are enrolled in "DBMS" and "OS"
- d. Name of all students who are either enrolled in "DBMS" or "OS" or both.

Examinations Lockdown Browser Practice Test

☰ Quiz

Consider the following relational schema with all atomic values.

Academic\_Staff (SID, FacultyID, FacultyLocation, FacultyPhone, StaffName, StaffPosition, HoursPerWeek) with following functional dependencies.

SID  $\rightarrow$  StaffName, StaffPosition, FacultyID, FacultyLocation, FacultyPhone

FacultyID  $\rightarrow$  FacultyLocation, FacultyPhone

FacultyLocation  $\rightarrow$  FacultyID, FacultyPhone

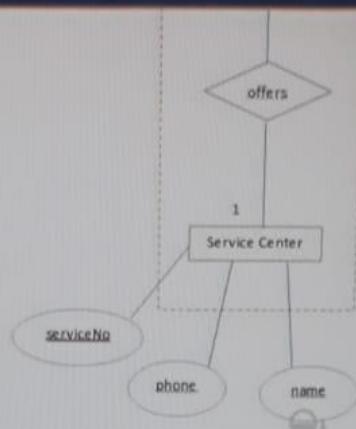
FacultyPhone  $\rightarrow$  FacultyID, FacultyLocation

What is the primary key for the relation?

Select one:

a. SID  
 b. SID, FacultyID  
 c. FacultyPhone  
 d. FacultyLocation  
 e. StaffName

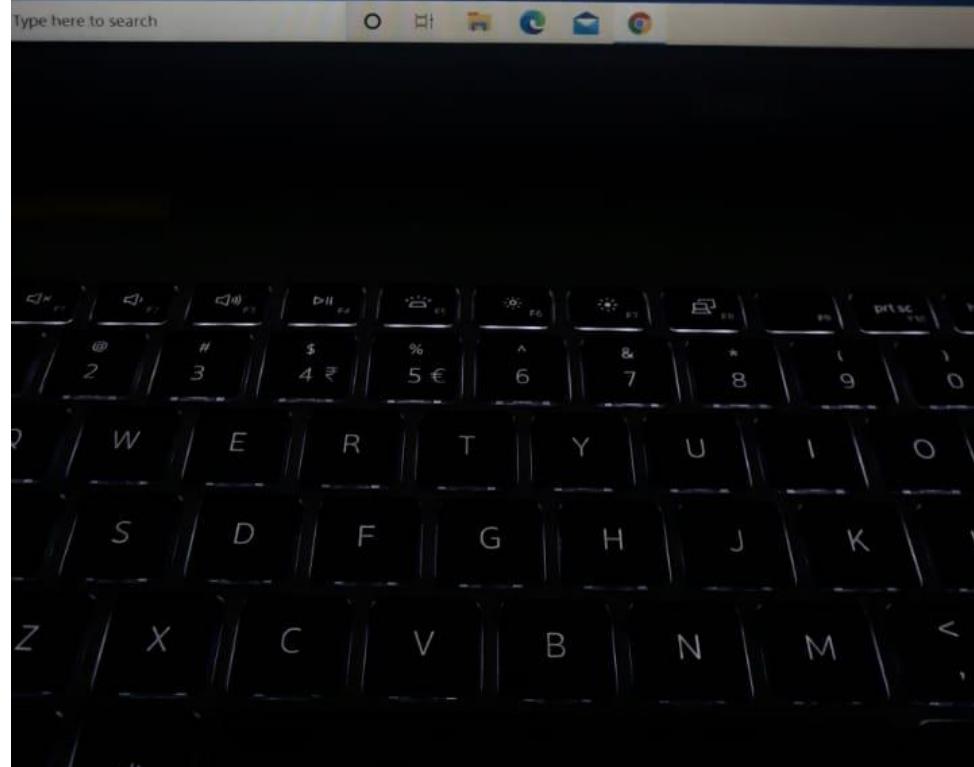
Next page

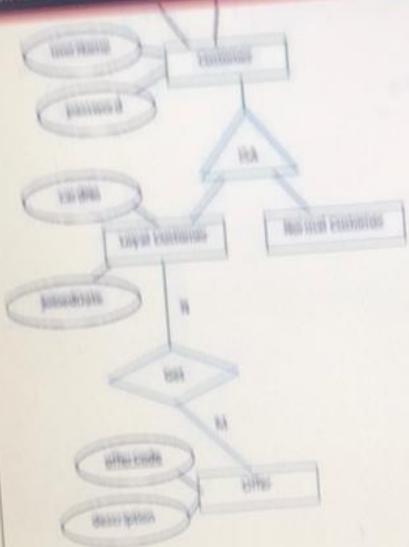


Which of the following statements are incorrect related to mapping the above ER model to the relational model.

Select one or more:

- a. serviceNo is a foreign key in the serviceType relation
- b. sNumber is a foreign key in the Service Center relation
- c. bookingID is a foreign key in the service Center relation
- d. bookingID is a foreign key in the serviceType relation
- e. bookingID is a foreign key in the Offers relation





Which option below is the most appropriate mapping for the ISA hierarchy?

Select one)

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Dashboard Examinations Lockdown Browser Practice Test

Select the correct answer after map the above aggregation relationship into the relational model.

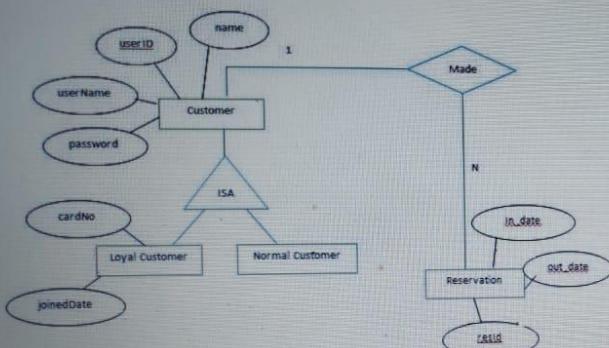
Select one:

- a. Room (HotelID, roomID, description, noOfBeds)  
Reservation(resID, in\_date, out\_date)  
Payment (invoiceNo, amount, discount)
- b. Room (HotelID, roomID, description, noOfBeds)  
Reservation(resID, in\_date, out\_date)  
Has(roomID, resID)  
Made(roomID, resID, invoiceNo)  
Payment (invoiceNo, amount, discount)
- c. Room (roomID, description, noOfBeds)  
Reservation(resID, in\_date, out\_date)  
Has(roomID, resID)  
Made(roomID, resID, invoiceNo)  
Payment (invoiceNo, amount, discount)
- d. Room (HotelID, roomID, description, noOfBeds)  
Reservation(resID, HotelID, roomID, in\_date, out\_date)  
Payment (invoiceNo, HotelID, roomID, amount, discount)
- e. Room (HotelID, roomID, description, noOfBeds)  
Reservation(resID, in\_date, out\_date)  
Has(HotelID, roomID, resID)  
Made(HotelID, roomID, resID, invoiceNo)  
Payment (invoiceNo, amount, discount)

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ASUS VivoBook

Consider the following EER diagram. Note that loyal customer and normal customer cover customer.



Which of the following statements are incorrect related to mapping the above EER model to the relational model.

Select one or more:

- a. Option 3 and 4 would have created relation for Customer
- b. Option 2 is not suitable
- c. Option 1 is not suitable
- d. Option 3 and 4 will result in null values

### Quiz navigation

Finish attempt ...

Time left 0:14:31

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8	9	10	11	12	13
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22					

### ERROR REPORTING

23

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Examinations

Lockdown Browser

Practice Test

Question 7

Not yet answered

Marked out of 1.0

Flag question

Relation R has eight attributes RUSQTP. Please consider relation R contains only atomic values.

$F = \{R \rightarrow S, Q \rightarrow RU, T \rightarrow P\}$  is a set of functional dependencies that hold for R.

Identify candidate keys in the relation R.

Select one or more:

- a. QT
- b. T
- c. RQ
- d. Q
- e. R

ard Examinations Lockdown Browser Practice Test

Question 9  
Not yet answered  
Marked out of 1.0  
Flag question

Which of the following are direct/indirect **advantages** of using a DBMS?

Select one or more:

- a. Maintaining integrity of data
- b. Restricting unauthorized access to data
- c. Reduced program maintenance
- d. Providing fast access to data
- e. All of the above

Next

Question 9  
Not yet answered  
Marked out of 1.0  
Flag question

Consider the following tables  
Patient (pid, pname, age)  
Admission (pid, admissionDate)  
Pid attribute in the Admission table is a foreign key referring to pid attribute of the Patient table. Assume no null values and no foreign keys or integrity constraints. Given the following four queries:

Query1: select pid from Patient  
where pid in (select pid from Admission)

Query2: select pid from Admission  
where pid in (select pid from Patient)

Query3: select p.pid from Patient p, Admission a  
where a.pid = p.pid

Query4: select pid from Admission  
where exists (select \* from Patient  
where Patient.pid = Admission.pid)

Which one of the following statements is correct?

Select one:

- a. All queries return identical row sets
- b. Query4 will encounter an integrity violation at runtime.
- c. Query3 returns strictly fewer rows than Query2
- d. Query2 and Query4 return identical row sets but Query1 and Query2 return different row sets.

Quiz navigation

Finish attempt ...  
Time left 0:27:02

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22		
ERROR REPORTING 23							

Consider the following activities performed by a database developer while developing a database for a small pharmacy.

1. Go through the books maintained for recording supplies
2. Identify attributes that determine certain groups of attributes
3. Select a database development software
4. Give access to clerks to enter data

Select one:

- a. 1, 2, 3, 4
- b. 2, 3, 4, 1
- c. 4, 1, 3, 2
- d. 1, 3, 2, 4
- e. 3, 2, 4, 1

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**NetExam**

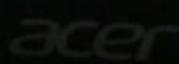
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Examinations Lockdown Browser Practice Test

Relation R has eight attributes RUSQTP. Please consider relation R contains only atomic values.  $F = \{R \rightarrow S, Q \rightarrow RU, T \rightarrow P\}$  is a set of functional dependencies that hold for R. What is the normal form that the above relation is in?

Select one:

- a. 2NF
- b. Unnormalized Form
- c. BCNF
- d. 1NF
- e. 3NF



**The DROP TABLE statement**

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estion

Select one or more:

- a. Deletes the table structure only
- b. Works whether or not referential integrity constraints would be violated
- c. Deletes the table structure along with the table data
- d. Works only if the referential integrity constraints are not violated
- e. Deletes the table data only

**The following questions is based on a relation**

Emps (empID, ssNo, name, mgrID)  
which stores employee ID (assumed unique), social-security number (also unique), name (not necessarily unique) for employees and the employee ID of the manager of the employee.

Assume that the president is his/her own manager, so every employee has a unique manager. You may assume there are no duplicate tuples in this relation.

Suppose we wish to find the ID's of the employees that are managed by people who are managed by the employee with ID 123. Here are two possible queries:

```
1. SELECT ee.empID
   FROM Emps ee, Emps ff
  WHERE ee.mgrID = ff.empID AND ff.mgrID = 123;
2. SELECT empID
   FROM Emps
  WHERE mgrID IN
    (SELECT empID FROM Emps WHERE mgrID = 123);
```

Which, if any, of the two queries above will correctly (in SQL) get the desired set of employee ID's?

Select one:

- a. I only
- b. II only

**Quiz navigation**

Finish attempt ...

Time left 0:32:17

1	2	3	4
8	9	10	11
15	16	17	18
22			
23			

**ERROR REPORTING**

23

Activate  
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**4**

answered

1 out of 1.0

question

Which of the following are **not** examples for program data independence(insulation between program and data)?

Select one or more:

- a. Being able to add columns to a table without effecting user queries
- b. Being able to define which users are able to access data
- c. Being able to improve the performance of database without effecting the data
- d. Being able to hide from users where the actual data are stored
- e. Being able to access data using programs written in different programming languages.

Next pa



Examinations

LOCKDOWN BROWSER

Practice Test

it20007256 Ku

Consider the following steps involved in database design process related to a bank database :

1. Develop a database program to calculate the interest
2. Collecting printed reports presented at meetings
3. select a database software to develop the database
4. Providing access to senior managers to change interest rate of an account type

Which order should the above happen in designing and developing a database.

Select one:

- a. 4, 2, 3, 1
- b. 3, 4, 2, 1
- c. 1, 2, 3, 4
- d. 2, 3, 1, 4
- e. 3, 2, 4, 1

Next page



ion 7

et answered

ed out of 1.0

lag question

Which of the following is true related to ISA relationships?

Select one or more:

- a. The hierarchy in which each entity participates in only one subclass relationship is classified as disjoint
- b. A sub type of a ISA hierarchy can have its own key
- c. If subtypes are overlapping the participation constraint must be partial
- d. A shape object with circle, rectangle and triangle as sub types is an example for a total participation

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answered

out of 1.0

question

Consider the following relation Person,

Person(FullName, NIC, PassportNo, Address) with following set of functional dependencies

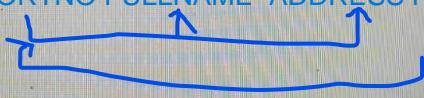
PassportNo → Address

PassportNo → FullName

NIC → PassportNo

Identify candidate keys in the relation Person.

PASSPORTNO FULLNAME ADDRESS NIC



Select one or more:

- a. (NIC,Address)
- b. PassportNo
- c. FullName
- d. NIC
- e. (NIC,PassportNb)

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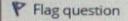
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Next page

**Question 7**  
Not yet answered  
Marked out of 1.0  


Consider the following relation

Weather (CityID,temperature,city,condition)

Which of the following query will return the names of these cities with temperature and condition whose condition is neither sunny nor cloudy.



Select one:

- a. SELECT city, temperature, condition  
FROM weather  
WHERE condition NOT EXISTS ('sunny', 'cloudy');
- b. SELECT city, temperature, condition  
FROM weather  
WHERE condition BETWEEN ('sunny', 'cloudy');
- c. SELECT city, temperature, condition  
FROM weather  
WHERE condition IN ('sunny', 'cloudy')
- d. SELECT city, temperature, condition  
FROM weather  
WHERE condition EXISTS ('sunny', 'cloudy')
- e. SELECT city, temperature, condition  
FROM weather  
WHERE condition NOT IN ('sunny', 'cloudy')

[Next page](#)

Examinations

Lockdown Browser

Practice Test

Which of the following is true related to ISA relationships?

Select one or more:



- a. The hierarchy in which each entity participates in only one subclass relationship is classified as disjoint
- b. A shape object with circle, rectangle and triangle as sub types is an example for a total participation
- c. A sub type of a ISA hierarchy can have its own key
- d. If subtypes are overlapping the participation constraint must be partial

Not yet answered  
Marked out of 1.0  
 Flag question

Member (memId,name,address,phone)  
Member\_Hobbies(memId,hobby)

Which of the following query will return the names of the members who have both 'Music' and 'Photography' for hobbies.

Select one or more:

- a. Select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby='Music' and 'Photography'
- b. select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby='Music' and m.memId in  
(select memId from Member\_Hobbies where hobby='Photography')
- c. Select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby IN('Music','Photography')
- d. Select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId and h.hobby=ANY('Music','Photography')
- e. select m.name  
from Member m, Member\_Hobbies h  
where m.memId=h.memId  
and m.memId in  
(select memId from Member\_Hobbies where hobby='Photography')  
and m.memId in  
(select memId from Member\_Hobbies where hobby='Music')

Examinations

Lockdown Browser

Practice Test

Which of the following is **true** about the HAVING clause?

Select one or more:

- a. Acts like a WHERE clause but is used for groups rather than rows.
- b. Acts like a WHERE clause but is used for rows rather than columns.
- c. Acts like a WHERE clause but is used for columns rather than groups.
- d. HAVING clause only contain conditions containing aggregate functions
- e. HAVING clause can contain any SQL statement



Question 6

Not yet answered

Marked out of 1.0

Flag question

Which of the following statements are correct related to ISA relationships?

Select one or more:

- a. A sub type can participate in a relationship that is unique to that subtype.
- b. Subtypes at the higher level in the hierarchy inherit attributes only from their immediate subtype.
- c. Refining one or more supertypes of the subtype and forming supertype/subtype relationships is known as specialization
- d. ISA relationship containing private university, state university and semi-government university as subclass is a partial and disjoint constraint

Next page

ERA  
23

Sales(productId,customerId,Qty) | count - Using SQL query to find | (32) W  
ion 2021 (IT2) Sales(productId,customerId,Qty) count - Using SQL query to find (32) W  
https://netexam.sliit.lk/mod/quiz/attempt.php?attempt=80303&cmid=2466&page=3

# NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

Which of the following statements are not true

Select one or more:

- a. When a group by clause is available in a SQL query, fields in the select clause must be those
- b. Where clause cannot contain aggregate functions
- c. Having clause cannot be used without a group by clause
- d. When a group by clause is available in a SQL query, fields in the group by clause must appear in the select clause
- e. Having clause cannot contain aggregate functions

Consider the following relational schemes,

Car (Number, Owner, ChassisNo, Model, Year, Price)

Registration (Number, Owner, ChassisNo)

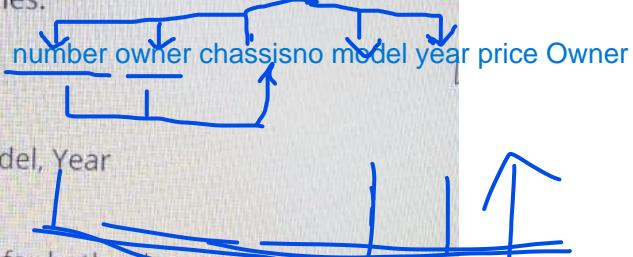
with following functional dependencies:

I. Number, Owner  $\rightarrow$  ChassisNo

II. ChassisNo  $\rightarrow$  Number, Owner, Model, Year

III. Model, Number, Year  $\rightarrow$  Price

Assume {Number, Owner} is the key for both schemes.



What is the current normal form of Car?

Select one:

- a. 1NF
- b. 3NF
- c. BCNF
- d. 2NF
- e. Unnormalized form

**SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY**

Dashboard Examinations Lockdown Browser Practice Test it20023300

**Question 5**  
Not yet answered  
Marked out of 1.0

Consider the following relation  
Weather (CityID,temperature,city,condition)

Which of the following query will return the names of these cities with temperature and condition whose condition is neither sunny nor cloudy.

Select one:

- a. SELECT city, temperature, condition  
FROM weather  
WHERE condition EXISTS ('sunny', 'cloudy')
- b. SELECT city, temperature, condition  
FROM weather  
WHERE condition NOT IN ('sunny', 'cloudy')
- c. SELECT city, temperature, condition  
FROM weather  
WHERE condition IN ('sunny', 'cloudy')
- d. SELECT city, temperature, condition  
FROM weather  
WHERE condition BETWEEN ('sunny', 'cloudy');
- e. SELECT city, temperature, condition  
FROM weather  
WHERE condition NOT EXISTS ('sunny', 'cloudy');

Consider the following relation

Member (memId, name, address, phone)  
 Member\_Hobbies (memId, hobby)

Which of the following query will return the names of the members who have both 'Music' and 'Photography' for hobbies.

Select one or more:

- a. Select m.name  
 from Member m, Member\_Hobbies h  
 where m.memId=h.memId and h.hobby IN('Music','Photography')
- b. select m.name  
 from Member m, Member\_Hobbies h  
 where m.memId=h.memId  
 and m.memId in  
 (select memId from Member\_Hobbies where hobby='Photography')  
 and m.memId in  
 (select memId from Member\_Hobbies where hobby='Music')
- c. select m.name  
 from Member m, Member\_Hobbies h  
 where m.memId=h.memId and h.hobby='Music' and m.memId in  
 (select memId from Member\_Hobbies where hobby='Photography')
- d. Select m.name  
 from Member m, Member\_Hobbies h  
 where m.memId=h.memId and h.hobby=ANY('Music','Photography')
- e. Select m.name

Quiz navigation

Finish attempt ...

Time left 0:41:56

1	2	3	4	5	6
8	9	10	11	12	13
15	16	17	18	19	20
22					

ERROR REPORTING

23

Activate Windows

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# NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

Consider the following SQL query:

```
SELECT e.emp_id, e.dno, d.name, e.salary  
FROM Emp e, Dept d  
WHERE e.dno = d.dept_id;
```

Which of the following SQL statements produce the same output as the SQL query above?

Select one:

- a. 

```
SELECT emp_id, dept_id, d.name, Salary  
FROM Emp e JOIN Dept d USING (e.dept_id, d.dept_id);
```
- b. 

```
SELECT emp_id, dno, d.name, salary  
FROM Emp e INNER JOIN Dept d ON e.dno = d.dept_id;
```
- c. 

```
SELECT e.emp_id, e.dno, d.name, e.salary  
FROM Emp  
WHERE dept_id IN (SELECT dept_id FROM Dept);
```
- d. 

```
SELECT e.emp_id, e.dept_id, d.name, e.salary  
FROM Emp LEFT OUTER JOIN Dept;
```
- e. None of the above

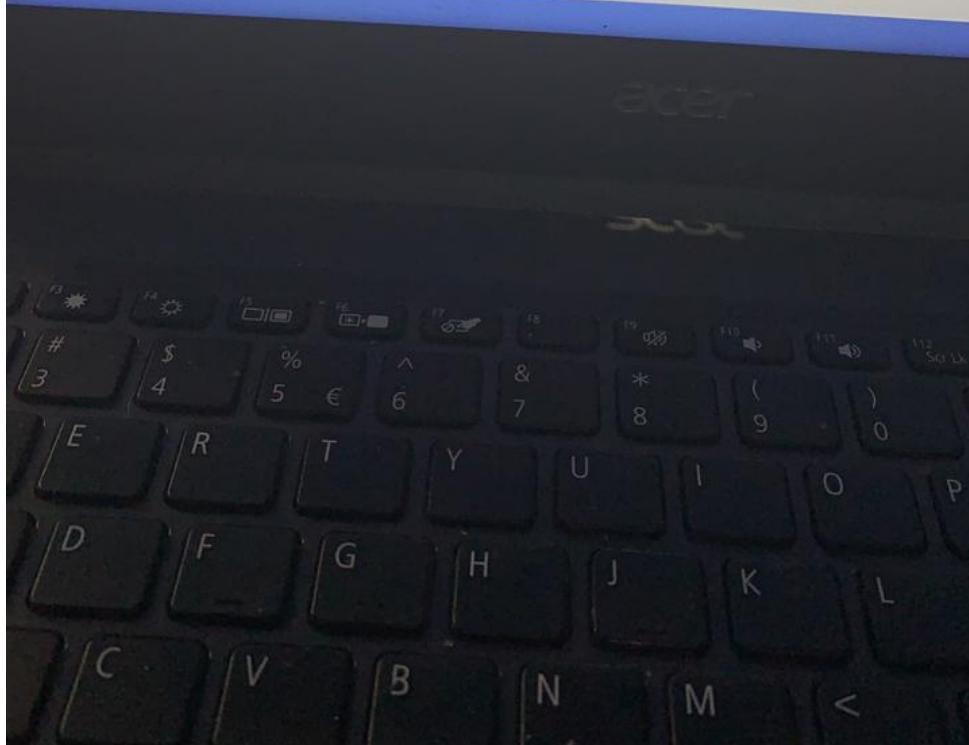


Relation R has eight attributes RUSQTP. Please consider relation R contains only atomic values.  
 $F = \{R \rightarrow S, Q \rightarrow RU, T \rightarrow P\}$  is a set of functional dependencies that hold for R.

Identify candidate keys in the relation R.

Select one or more:

- a. RQ
- b. Q
- c. QT
- d. R
- e. T



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# NetExam

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Examinations Lockdown Browser Practice Test

Which of the following is **true** about the HAVING clause?

Select one or more:

- a. Acts like a WHERE clause but is used for columns rather than groups.
- b. Acts like a WHERE clause but is used for rows rather than columns.
- c. HAVING clause only contain conditions containing aggregate functions
- d. HAVING clause can contain any SQL statement
- e. Acts like a WHERE clause but is used for groups rather than rows.

Consider the following table definition

Create table Product

```
(  
    pid char(4) primary key,  
    pname varchar(30),  
    manufactureDate datetime default getdate(),  
    Qty int,  
    constraint pid_chk CHECK (pid Like '[P|S|T][0-5][0-5][0-5]'),  
    constraint qty_chk CHECK (qty>0)  
)
```

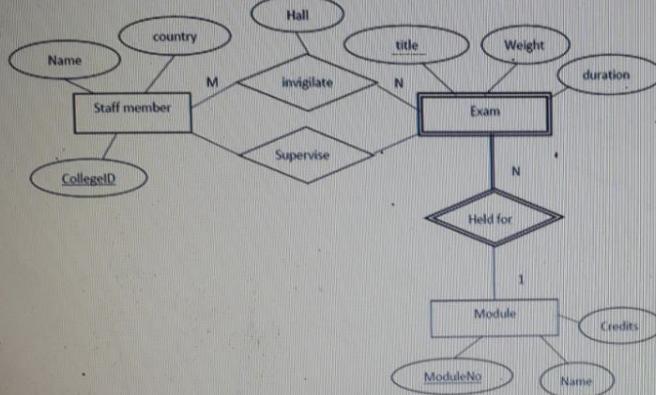
Which of the following statements are true related to the above definition

Select one or more:

- a. Consider a product with a quantity (qty) of 10. Update table written to deduct 15 from the available quantity in the above table will not be successful.
- b. T12 is a valid pid that could be stored in the Product table
- c. After executing the following insert statement in the above table the row inserted will have two null values  
`Insert into Product(pid,qty) values ('T000',50)`
- d. P333 is a valid pid that could be stored in the Product table
- e. Executing the following insert statement will cause an error to occur  
`Insert into Product(pid,qty) values ('T000',50)`

Question 3  
1 answered  
out of 1.0  
question

Consider the following EER diagram:



Which of the following statements are correct related to the diagram above?

Select one or more:

- a. When the same staff member invigilate the same exam many times only one invigilation could be recorded
- b. One module can have several exams with the same title
- c. All staff members invigilate exams
- d. There can be modules without exams
- e. There can be multiple modules with the same exam title

fred  
f 1.0

EMP(eid, ename, age, salary, did)

What will be the output of following SQL query ?

```
select * from emp e
where 2 = (select count(distinct e1.age)
            from emp e1
            where e1.age>e.age)
```

Select one:

- a. Third highest age
- b. Two distinct ages of employees
- c. Second highest age
- d. Employee with second highest age

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Examinations

Lockdown Browser

Practice Test

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et answered

ed out of 1.0

eg question

Consider the following schema

EMP(eid, ename, age, salary, did)

What will be the output of following SQL query ?

```
select * from emp e  
where 2 = (select count(distinct e1.age)  
           from emp e1  
           where e1.age>e.age)
```

Select one:

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NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

it20

Consider the following relation Person,  
Person(FullName, NIC, PassportNo, Address) with following set of functional dependencies  
 $\text{PassportNo} \rightarrow \text{Address}$   
 $\text{PassportNo} \rightarrow \text{FullName}$   
 $\text{NIC} \rightarrow \text{PassportNo}$

The corresponding BCNF relations are

Select one:

- a. Person1(NIC, Address), Person2(PassportNo, FullName) and Person3(PassportNo, Address)
- b. Person(FullName, NIC, PassportNo, Address)
- c. Person1(NIC, FullName), Person2(PassportNo, FullName) and Person3(PassportNo, Address)
- d. Person1(NIC, PassportNo), Person2(PassportNo, Address, FullName)
- e. Person1(NIC, PassportNo), Person2(PassportNo, FullName) and Person3(PassportNo, Address)

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Dashboard Examinations Lockdown Browser Practice Test

it20061234 Nanayakkara N D H it20061234

Marked out of 1.0 Flag question

**ER Diagram:**

```

    graph LR
        Room[Room] -- "N" --> Has[Has]
        Has -- "M" --> Reservation[Reservation]
        Room -- "noOfBeds" --> Room
        Room -- "description" --> Room
        Room -- "phone" --> Room
        Reservation -- "in_date" --> Reservation
        Reservation -- "out_date" --> Reservation
        Reservation -- "resID" --> Reservation
    
```

Select one:

- a. Room (roomID, noOfBeds, description, phone)  
Reservation (resID, in\_date, out\_date)  
Has (roomID, resID)
- b. Room (roomID, noOfBeds, description, resID)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date)
- c. Room (roomID, noOfBeds, description)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date)  
Has (roomID, resID)
- d. Room (roomID, noOfBeds, description)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date)  
Has (roomID, resID)
- e. Room (roomID, noOfBeds, description)  
RoomPhone (roomID, phone)  
Reservation (resID, in\_date, out\_date, roomID)

Finish attempt ... Time left 0:44:36

1	2	3	4	5
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17	18	19	20	21

ERROR REPORTING 23

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Sri Lanka Institute of Information Technology

Dashboard Examinations Lockdown Browser Practice Test

it20008178 Priyaratne K.K.M.

**Question 4**  
Not yet answered  
Marked out of 1.0  
Flag question

The following questions is based on a relation

Emps (empID, ssNo, name, mgrID)

which stores employee ID (assumed unique), social-security number (also unique), name (not necessarily unique) for employees and the employee ID of the manager of the employee.

Assume that the president is his/her own manager, so every employee has a unique manager. You may assume there are no duplicate tuples in this relation.

Suppose we wish to find the IDs of the employees that are managed by people who are managed by the employee with ID 123. Here are two possible queries:

```

1. SELECT ee.empID
   FROM Emps ee, Emps ff
   WHERE ee.mgrID = ff.empID AND ff.mgrID = 123;
2. SELECT empID
   FROM Emps
   WHERE mgrID IN
        (SELECT empID FROM Emps WHERE mgrID = 123);

```

Which, if any, of the two queries above will correctly (in SQL) get the desired set of employee IDs?

Select one:

- a. II only
- b. Query can't represent in SQL
- c. Neither I nor II
- d. Both I and II
- e. None of the above

Finish attempt ... Time left 0:47:21

1	2	3	4
9	10	11	12
17	18	19	20

ERROR REPORTING 23

Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

Consider the following relation Person,  
Person(FullName, NIC, PassportNo, Address) with following set of functional dependencies  
 $\text{PassportNo} \rightarrow \text{Address}$   
 $\text{PassportNo} \rightarrow \text{FullName}$   
 $\text{NIC} \rightarrow \text{PassportNo}$

Identify candidate keys in the relation Person.

Select one or more:

- a. NIC
- b. PassportNo
- c. FullName
- d. (NIC,Address)
- e. (NIC,PassportNo)

Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test It20203962 Sena

Which of the following is/are intension(s) of a database developer during the requirement collection and analysis phase?

Select one or more:

- a. Finding the names of the people who will be developing the applications to access the database
- b. Identify different types of data retrievals to be performed on the database
- c. Finding data to be stored in the organization
- d. Identify the number of concurrent users who will be using the database
- e. Finding relationships among data in the organization

Next page

Consider the following relation

R (A, C, E, G, I, K, L, N, P, Q) with following set of functional dependencies

{AC → E, A → GI, C → K, K → LN, G → PQ}

Identify candidate keys in the relation R.

Select one or more:

- a. AC
- b. G
- c. C
- d. K
- e. A

Dashboard

Examinations

Lockdown Browser

Practice Test

Question 3

Not yet answered

Marked out of 1.0

Flag question

Consider the following schema

EMP(eid, ename, age, salary, did)

What will be the output of following SQL query ?

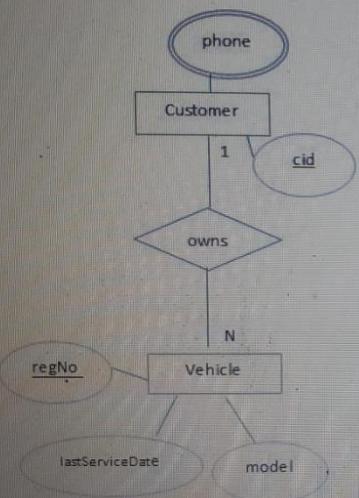
```
select * from emp e  
where 2 = (select count(distinct e1.age)  
           from emp e1  
           where e1.age>e.age)
```

Select one:

- a. Third highest age
- b. Two distinct ages of employees
- c. Second highest age
- d. Employee with second highest age

red  
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on

Consider the following ER model. Which answer gives the tables in the relational model?



Select one:

- a. Customer (cid, phone)  
Vehicle(regNo, lastServiceDate, model, cid)
- b. Customer (cid, phone, regNo)  
Vehicle(regNo, lastServiceDate, model)

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## NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

it20244798 D

2 Consider the following requirements or a construction company:  
Company have multiple construction sites. Each site has a unique site number, address and construction type such as 'house', 'apartment', 'shopping complex'. For each site the company estimates the number the amounts required from each raw-material and these values are stored(ex: cement packs, sand, & etc.). Raw-materials have three different types such as wall-construction materials, wiring materials, Roofing materials and timber materials. Each material is identified by a unique ID and has a unit of measurement such as liters and kilograms. There are many suppliers providing raw materials for construction companies. The suppliers have are identified by a unique supplier id and each supplier has a name, address and a phone number. These are tracked by the construction company. However, during the construction, company may purchase different amount of raw-materials for a site from different suppliers at different prices.

Which of the following are correct related to the EER diagram drawn for the above description.

Select one or more:

a. Raw material types could be represented by an attribute named type

b. site is involved with a binary relationship with raw material

c. Company is a strong entity in the EER

d. Purchase relationship contains three descriptive attributes.

e. site is involved in a ternary relationship

Next page

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An item table of a supermarket stores the itemNumber, description, item Price, Quantity available and re-order level.

Which of the following is true with respect to above table.

Select one or more:

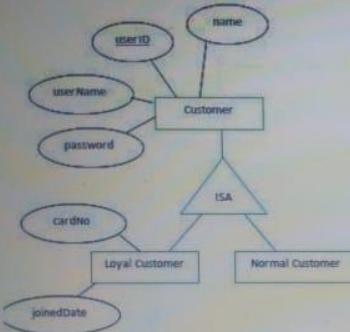
- a. DBMS can be configured in a manner that item numbers cannot be duplicated
- b. DBMS can be configured in a manner that registered customers can only view the item descriptions and prices
- c. DBMS cannot allow multiple cashiers to access to table to update the quantity in hand.
- d. DBMS cannot allow multiple cashiers to access the table to see the price of items at the same time
- e. DBMS can be configured in a manner that only the manager can change the price of an item

[Next page](#)

yet answered

Marked out of 1.0

Flag question



Which of the following statements are correct related to mapping the above EER model to the relational model.

Select one or more:

- a. Option 3 and 4 will result in null values
- b. Option 3 and 4 would have created relation for Customer
- c. Option 2 is more suitable
- d. Option 2 is not suitable
- e. Option 1 would have created relations for Customer, Loyal and Normal



## Question 1

Not yet answered

Marked out of 1.0

Flag question

Which of the following statements are **not true** about ALTER and UPDATE statements

Select one or more:

- a. Alter table command could be used to edit values of the rows in a table
- b. Alter table command could be used to modify the structure of the table
- c. Update command could be used to edit values of the rows in a table
- d. Update command could be used to add constraints to a table after it is created
- e. Update command could be used to modify the structure of the table

Next

2021 (IT200)

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## NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

it2

Consider the following requirements of a construction company:

Company have multiple construction sites. Each site has a unique site number, address and construction type such as 'house', 'apartment', 'shopping complex'). For each site the company estimates the number the amounts required from each raw-material and these values are stored(ex: cement packs, sand, & etc.). Raw-materials have three different types such as wall-construction materials, wiring materials, Roofing materials and timber material. Each material is identified by a unique ID and has a unit of measurement such as liters and kilograms. There are many suppliers providing raw materials for construction companies. The suppliers have are identified by a unique supplier id and each supplier has a name, address and a phone number. These are tracked by the construction company. However, during the construction company may purchase different amount of raw-materials for a site from different suppliers at different prices.

Which of the following are correct related to the EER diagram drawn for the above description.

Select one or more:

- a. Raw material types could be represented by an attribute named type
- b. site is involved with a binary relationship with raw-material
- c. site is involved in a ternary relationship
- d. Purchase relationship contains three descriptive attributes.
- e. Company is a strong entity in the EER



Consider the following relation R

(R M, N, O, P, Q)

with following set of functional dependencies,

$F = (N \rightarrow M, M \rightarrow O, NO \rightarrow P, MO \rightarrow NQ)$

Identify the candidate keys for the relation R

Select one or more:

- a. N
- b. M
- c. MO
- d. NO
- e. O





Indian Institute of Information Technology

Examinations Lockdown Browser Practice Test it20215156 Sandeep

1 unanswered out of 1.0 question

Relation R has eight attributes RUSQTP. Please consider relation R contains only atomic values.  
 $F = \{R \rightarrow S, Q \rightarrow RU, T \rightarrow P\}$  is a set of functional dependencies that hold for R.

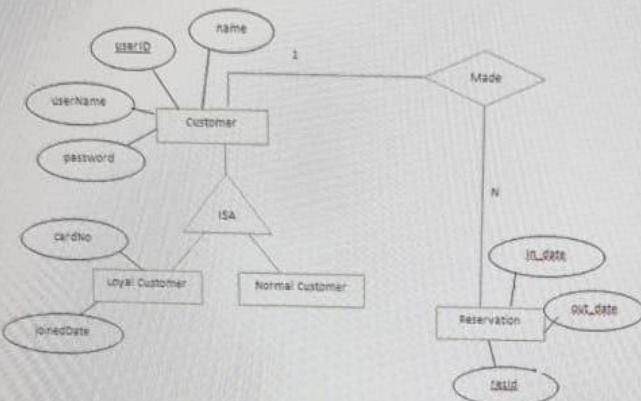
What is the normal form that the above relation is in?

Select one:

- a. 3NF
- b. Unnormalized Form
- c. 1NF
- d. 2NF
- e. BCNF

Next page

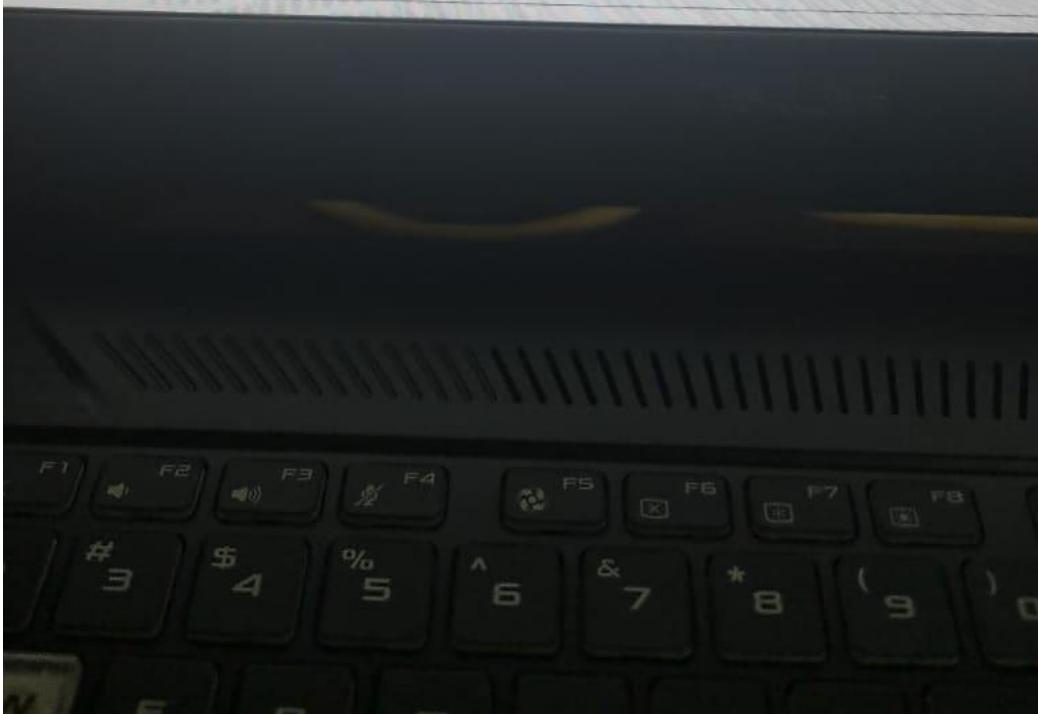
Consider the following EER diagram. Note that loyal customer and normal customer cover customer.



Which of the following statements are incorrect related to mapping the above EER model to the relational model.

Select one or more:

- a. Option 1 is not suitable
- b. Option 3 and 4 will result in null values
- c. Option 2 is not suitable
- d. Option 3 and 4 would have created relation for Customer
- e. Option 2 is more suitable



The following questions is based on a relation

Emps (empID, ssNo, name, mgrID)  
which stores employee ID (assumed unique), social-security number (also unique), name (not necessarily unique) for employees and the employee ID of the manager of the employee.

Assume that the president is his/her own manager, so every employee has a unique manager. You may assume there are no duplicate tuples in this relation.

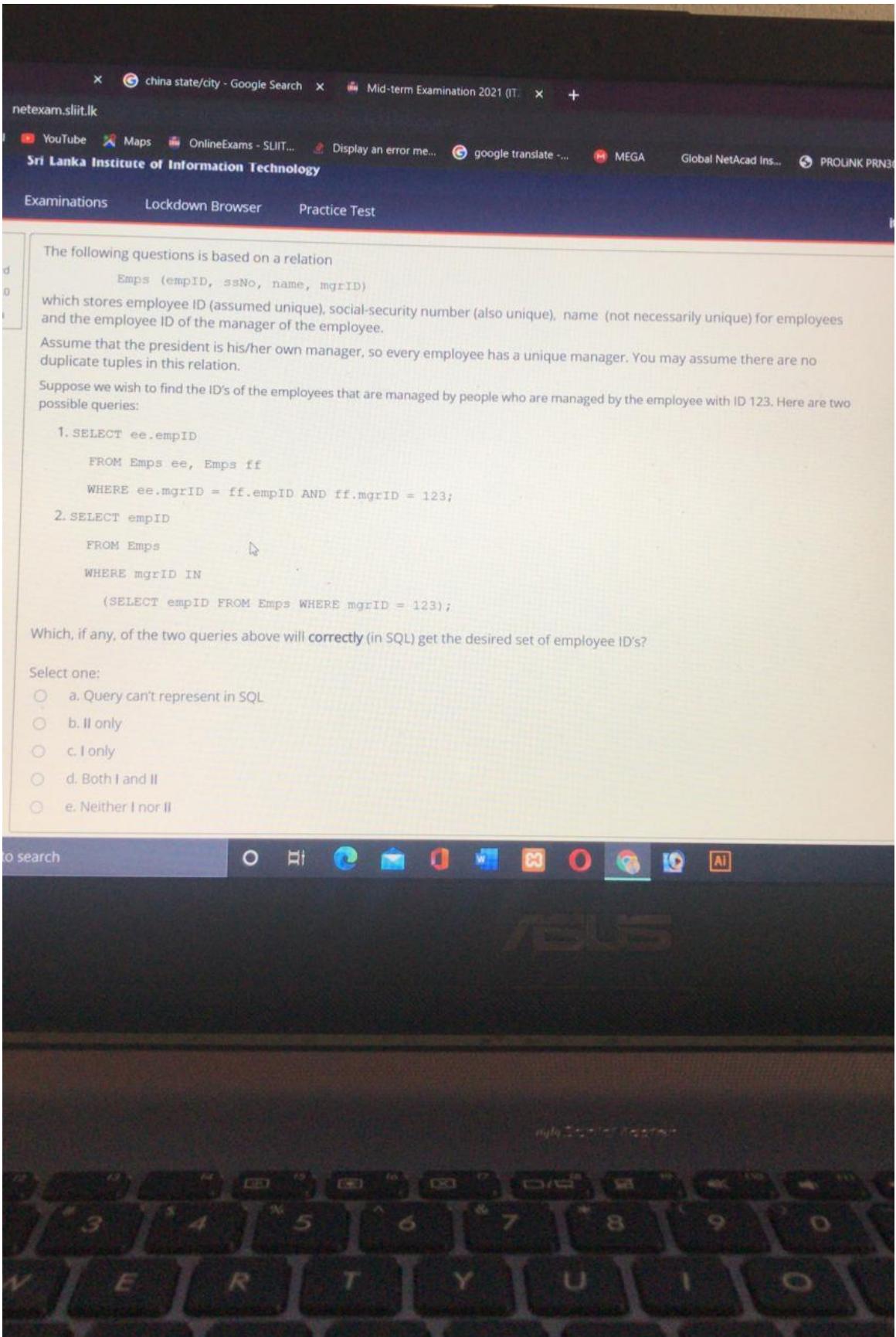
Suppose we wish to find the ID's of the employees that are managed by people who are managed by the employee with ID 123. Here are two possible queries:

1. SELECT ee.empID  
FROM Emps ee, Emps ff  
WHERE ee.mgrID = ff.empID AND ff.mgrID = 123;
2. SELECT empID  
FROM Emps  
WHERE mgrID IN  
(SELECT empID FROM Emps WHERE mgrID = 123);

Which, if any, of the two queries above will correctly (in SQL) get the desired set of employee ID's?

Select one:

- a. Query can't represent in SQL
- b. II only
- c. I only
- d. Both I and II
- e. Neither I nor II



20  
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NetExam  
Sri Lanka Institute of Information Technology

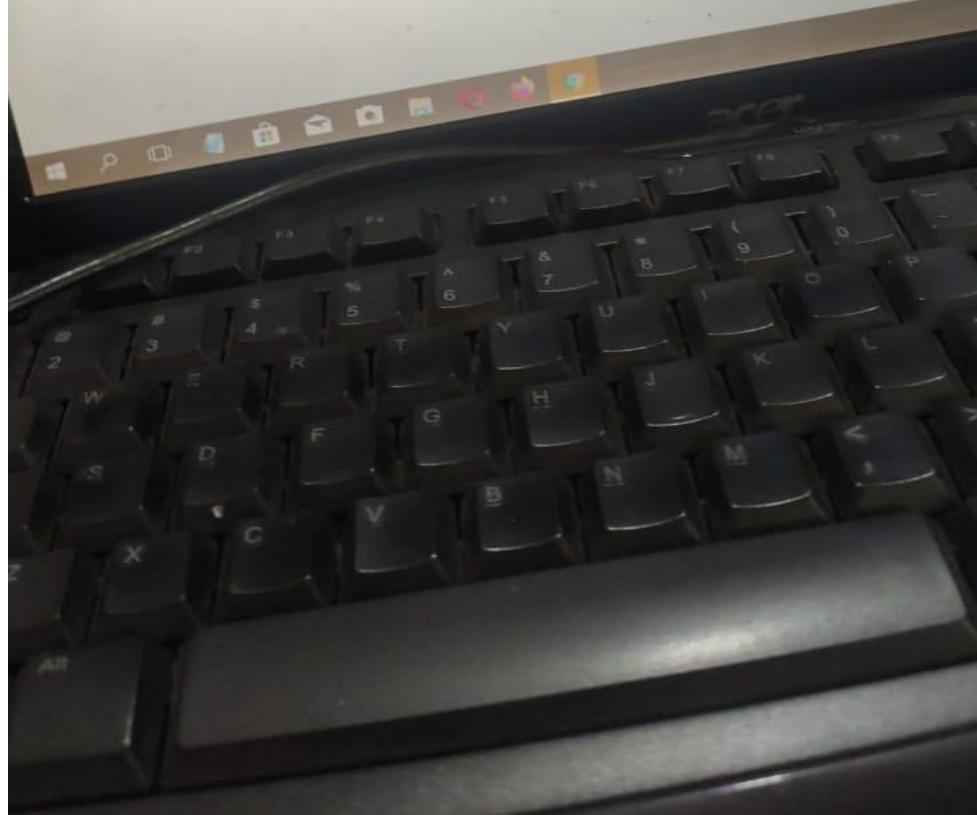
Examinations Lockdown Browser Practice Test

etexam.sliit.lk/mod/quiz/attempt.php?attempt=79304&cmid=2466&page=19

Which of the following are true related to SQL?

Select one or more:

- a. UNIQUE clause is used in SQL SELECT clause to eliminate duplicate data in the output
- b. ORDER BY clause is used in SQL to get an output sorted by a given field
- c. The INNER JOIN keyword selects records that have matching values in both tables.
- d. An OUTER JOIN is a join where tuples from one relation that do not have matching values in the common attributes of the second relation are also included in the result of performing the join and any missing values in the second relation are set to null.
- e. An OUTER JOIN returns all tuples in one relation that are not found in the other relation.



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# NetExam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

Academic\_Staff (SID, FacultyID, FacultyLocation, FacultyPhone, StaffName, StaffPosition, HoursPerWeek)  
with following functional dependencies.

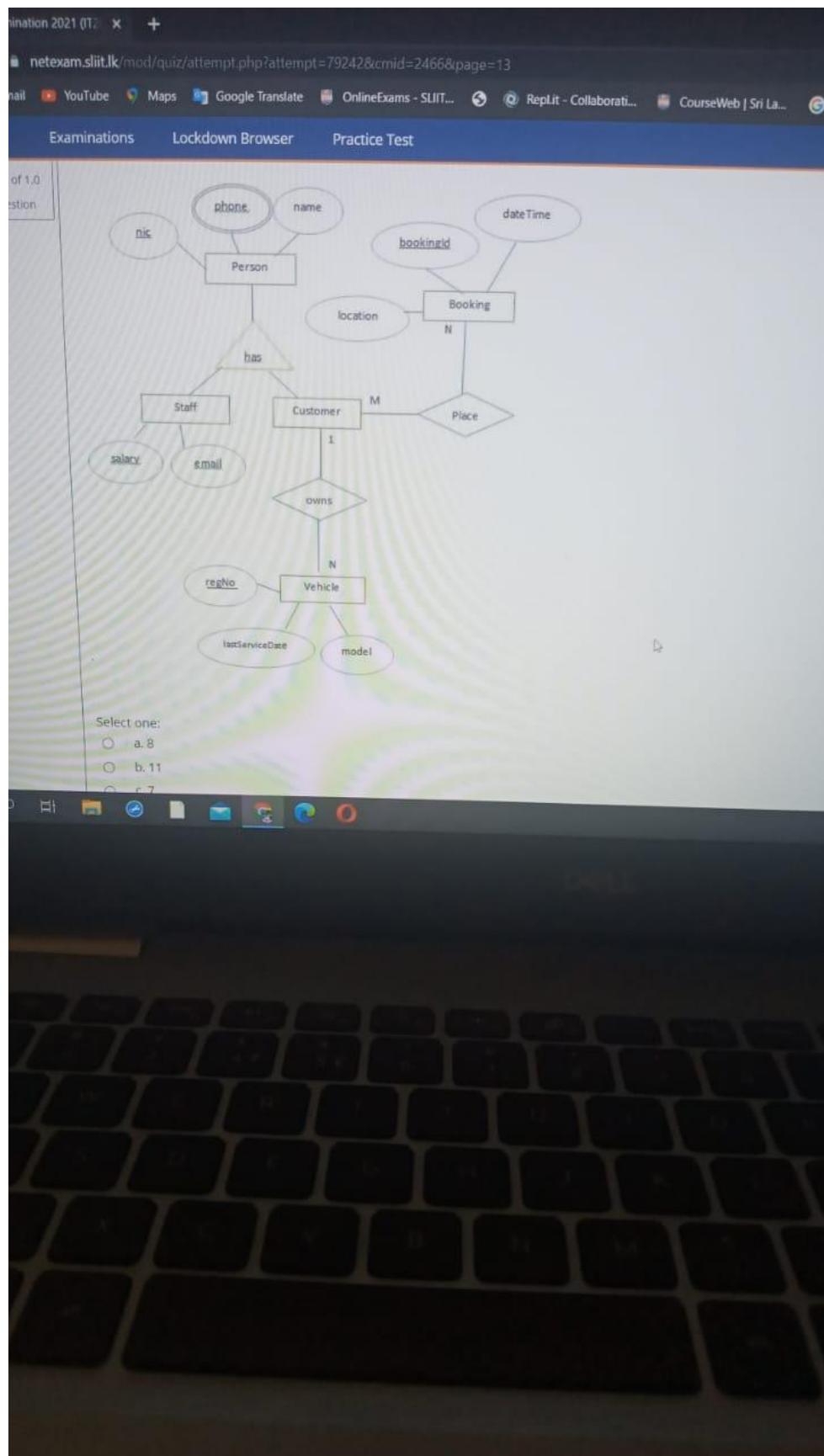
SID  $\rightarrow$  StaffName, StaffPosition, FacultyID, FacultyLocation, FacultyPhone  
FacultyID  $\rightarrow$  FacultyLocation, FacultyPhone  
FacultyLocation  $\rightarrow$  FacultyID, FacultyPhone  
FacultyPhone  $\rightarrow$  FacultyID, FacultyLocation  
What is the current normal form of Academic\_Staff?

Select one:

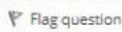
- a. 1NF
- b. 2NF
- c. BCNF
- d. Unnormalized form
- e. 2NF

Next page

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**Question 13**

Not yet answered  
Marked out of 1.0  


Select the correct answer after map the following entity into the relational model.



Select one:

- a. Customer (userID, fname, lname, username, password)  
Customer\_phone (userID, phone)
- b. Customer (userID, fname, lname, username, password)  
Customer\_phone (userID, phone)
- c. Customer (userID, name, username, password)  
Customer\_phone (userID, phone)
- d. Customer (userID, name, username, password, phone)
- e. Customer (userID, fname, lname, username, password, phone)



Which of the following are **not** examples for program data independence(insulation)

Select one or more:

- a. Being able to improve the performance of database without effecting the data
- b. Being able to access data using programs written in different programming lan
- c. Being able to add columns to a table without effecting user queries
- d. Being able to define which users are able to access data
- e. Being able to hide from users where the actual data are stored

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**tion 15**Not answered  
ed out of 1.0  
ag question

Consider the following requirements or a construction company:

Company have multiple construction sites. Each site has a unique site number, address and construction type such as 'house', 'apartment', 'shopping complex'). For each site the company estimates the number the amounts required from each raw-material and these values are stored(ex: cement packs, sand, & etc.). Raw-materials have three different types such as wall-construction materials, wiring materials, Roofing materials and timber materials. Each material is identified by a unique ID and has a unit of measurement such as liters and kilograms. There are many suppliers providing raw materials for construction companies. The suppliers have are identified by a unique supplier id and each supplier has a name, address and a phone number. These are tracked by the construction company. However, during the construction company may purchase different amount of raw-materials for a site from different suppliers at different prices.

Which of the following are correct related to the EER diagram drawn for the above description.

Select one or more:

- a. site is involved with a binary relationship with raw-material
- b. Purchase relationship contains three descriptive attributes.
- c. Raw material types could be represented by an attribute named type
- d. site is involved in a ternary relationship
- e. Company is a strong entity in the EER

**Quiz**

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23

Which of the following statements are true related to constraints?

Select one or more:

- a. When an entity instance may be a member of multiple subtypes or it does not have to be a member of a subtype the specialization is overlapping and total.
- b. A bowler and batsman(assume wicket keeper is also a batsman) which are sub types of a cricketer type is total and disjoint
- c. When an entity belongs to only one sub type in the hierarchy the relationship is total and disjoint.
- d. If a subtype participates in a relationship that is the same as the other subtypes that relationship could be added to the super type

Next p

**Question 12**

Not yet answered

Marked out of 1.0

 Flag question

The following questions is based on a relation

Emps (empID, ssNo, name, mgrID)

which stores employee ID (assumed unique), social-security number (also unique), name (not necessarily unique) for employees and the employee ID of the manager of the employee.

Assume that the president is his/her own manager, so every employee has a unique manager. You may assume there are no duplicate tuples in this relation.

Suppose we wish to find the ID's of the employees that are managed by people who are managed by the employee with ID 123. Here are two possible queries:

```
1. SELECT ee.empID  
    FROM Emps ee, Emps ff  
    WHERE ee.mgrID = ff.empID AND ff.mgrID = 123;
```

```
2. SELECT empID  
    FROM Emps  
    WHERE mgrID IN  
        (SELECT empID FROM Emps WHERE mgrID = 123);
```

Which, if any, of the two queries above will correctly (in SQL) get the desired set of employee ID's?

Select one:

- a. Query can't represent in SQL
- b. Both I and II
- c. I only
- d. Neither I nor II
- e. II only



# NetExam

Sri Lanka Institute of Information Technology

[Dashboard](#)[Examinations](#)[Lockdown Browser](#)[Practice Test](#)

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**Question 7**

Not yet answered

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 Flag question

Which of the following query will result in an error?

Select one or more:

- a. select dept\_id, count(name) from employees
- b. select dept\_id, avg(salary) from employees group by dept\_id
- c. select eid from employees where salary=avg(salary)
- d. select dept\_id, job\_id, avg(salary) from employees group by dept\_id, job\_id
- e. select avg(salary) from employees group by dept\_id

[Next page](#)

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### Examination

#### Sri Lanka Institute of Information Technology

#### Examinations

#### Lockdown Browser

#### Practice Test

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22 23

ERROR REPORTING

Final score: 0/10

Question 1 of 1.0

Which of the following is the correct order of process involved in developing a database.

Select one:

- a. Requirement collection and analysis, Conceptual database design, Schema refinement, Logical database design, Security design and physical database design
- b. Requirement collection and analysis, Conceptual database design, Schema refinement, Logical database design, Physical database design and Security Design
- c. Requirement collection and analysis, Conceptual database design, Schema refinement, Logical database design, Physical database design and Security Design
- d. Requirement collection and analysis, Physical database design, Schema refinement, Logical database design, Physical refinement, and Security Design
- e. Requirement collection and analysis, Conceptual database design, Logical database design, Schema refinement, Security design and physical database design

Next page



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Dashboard Examinations Lockdown Browser Practice Test

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Question 9  
Not yet answered  
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Consider the following description:  
A university has two types of rooms namely lecture halls and laboratories. Lecture halls have a capacity and a number of resources such as whiteboard, podium and projector. Laboratory classes also have a capacity and number of resources. These are located in different buildings in the campus known by names such as 'Block A', 'Block B' and 'Block C'. Each building has a specific number of floors. Each room has a number unique to each building. There are batches taken to the universities. They are identified by the intake year and intake name (for ex: 2021 Regular intake). A batch may have several groups such as G1, G2, G3 & etc. Each group has number of students and group name is unique within each batch. During time tabling, rooms are allocated for groups to conduct classes related to. The class name(such as 'lecture' and 'tutorial'), start time and the end time where the room will be held should be recorded.

Which of the following are true related to the above :

Select one or more:

- a. A group cannot exist without a batch
- b. There are no descriptive attributes for relationships in the diagram
- c. There are two identifying relationships in the diagram
- d. Allocated can be considered as a ternary relationship
- e. The entity batch has a composite key

Next page

**Question 22**

Not yet answered  
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Flag question

**Practice Test**

Consider the following relational schemes,  
Car (Number, Owner, ChassisNo, Model, Year, Price)  
Registration (Number, Owner, ChassisNo)  
with following functional dependencies:

- I. Number, Owner  $\rightarrow$  ChassisNo
- II. ChassisNo  $\rightarrow$  Number, Owner, Model, Year
- III. Model, Number, Year  $\rightarrow$  Price

Assume {Number, Owner} is the key for both schemes.

What is the current normal forms of Registration?

Assume {Number, Owner} is the key for both schemes.

Select one:

- a. Unnormalized
- b. BCNF
- c. 2NF
- d. 3NF

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Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

Which of the following is/are intension(s) of a database developer during the requirement collection and analysis phase?

Select one or more:

- a. Identify different types of data retrievals to be performed on the database
- b. Identify the number of concurrent users who will be using the database
- c. Finding relationships among data in the organization
- d. Finding the names of the people who will be developing the applications to access the database
- e. Finding data to be stored in the organization

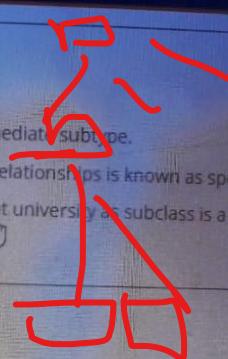
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Examinations Lockdown Browser Practice Test

Which of the following statements are correct related to ISA relationships?

Select one or more:

- a. Subtypes at the higher level in the hierarchy inherit attributes only from their immediate subtype.
- b. Defining one or more supertypes of the subtype and forming supertype/subtype relationships is known as specialization
- c. ISA relationship containing private university, state university and semi-government university as subclass is a partial and disjoint con
- d. A sub type can participate in a relationship that is unique to that subtype.



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Dashboard Examinations Lockdown Browser Practice Test 820045708 Udayantha Tissa

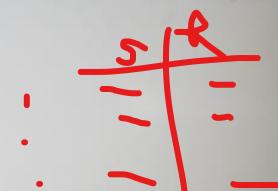
Question 1 Not yet answered Marked out of 1.0 Flag question

Suppose relation  $R(A, B)$  currently has tuples  $\{(1, 2), (1, 3), (3, 4)\}$  and relation  $S(B, C)$  currently has  $\{(2, 5), (4, 6), (7, 8)\}$ . Then the number of tuples in the result of the SQL query:

Select \* From R Left Outer Join S on (R.B = S.B);  
is:

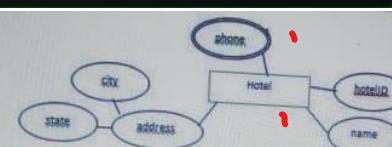
Select one:

- a. 4
- b. 5
- c. 2
- d. 6
- e. 3



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Getting into the relational model.



Select one:

- a. Hotel (hotelID, name, state, city)  
Hotel\_phone (hotelID, phone)
- b. Hotel (hotelID, name, address)  
Hotel\_phone (hotelID, phone)
- c. Hotel (hotelID, name, address, phone)
- d.  
Hotel (hotelID, name, state, city)  
Hotel\_phone (hotelID, phone)
- e. Hotel (hotelID, name, address)  
Hotel\_phone (hotelID, phone)



Question 3  
Not yet answered  
Marked out of 1.0

Consider the appointments table given below.

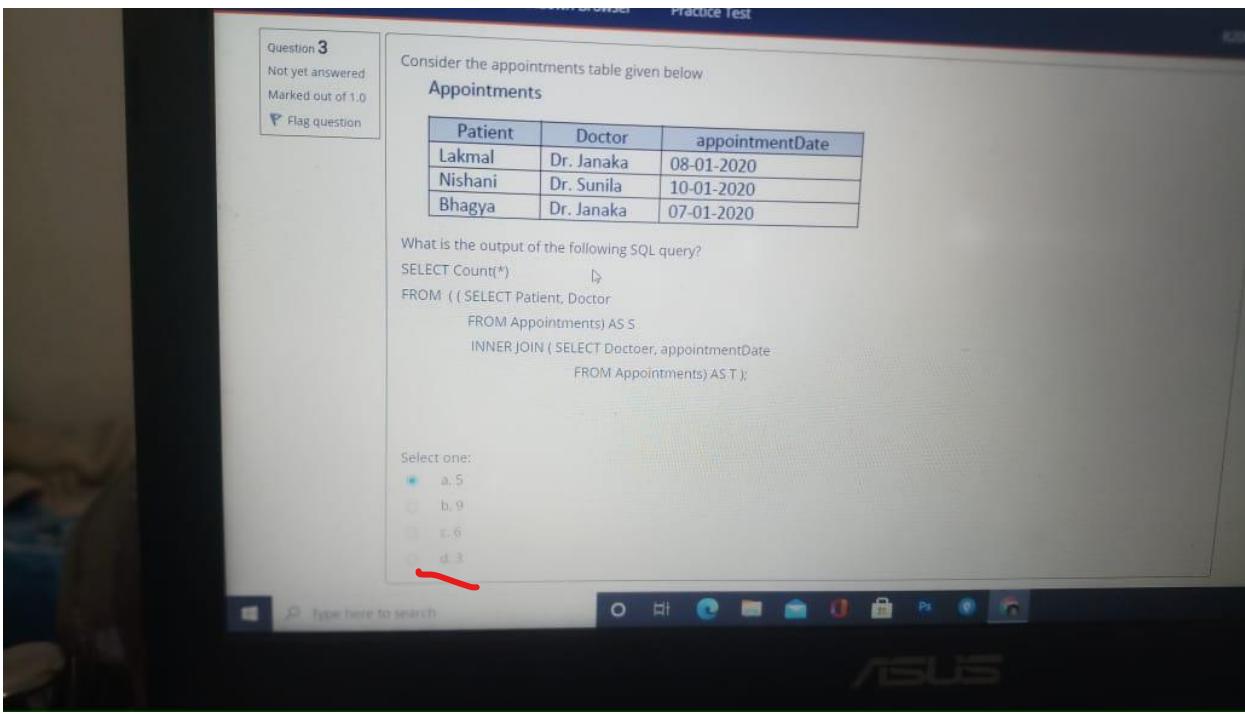
Patient	Doctor	appointmentDate
Lakmal	Dr. Janaka	08-01-2020
Nishani	Dr. Sunila	10-01-2020
Bhagya	Dr. Janaka	07-01-2020

What is the output of the following SQL query?

```
SELECT Count(*)  
FROM (( SELECT Patient, Doctor  
       FROM Appointments) AS S  
INNER JOIN ( SELECT Doctor, appointmentDate  
       FROM Appointments) AS T);
```

Select one:

a. 5  
 b. 9  
 c. 6  
 d. 3



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Dashboard Examinations Lockdown Browser Practice Test

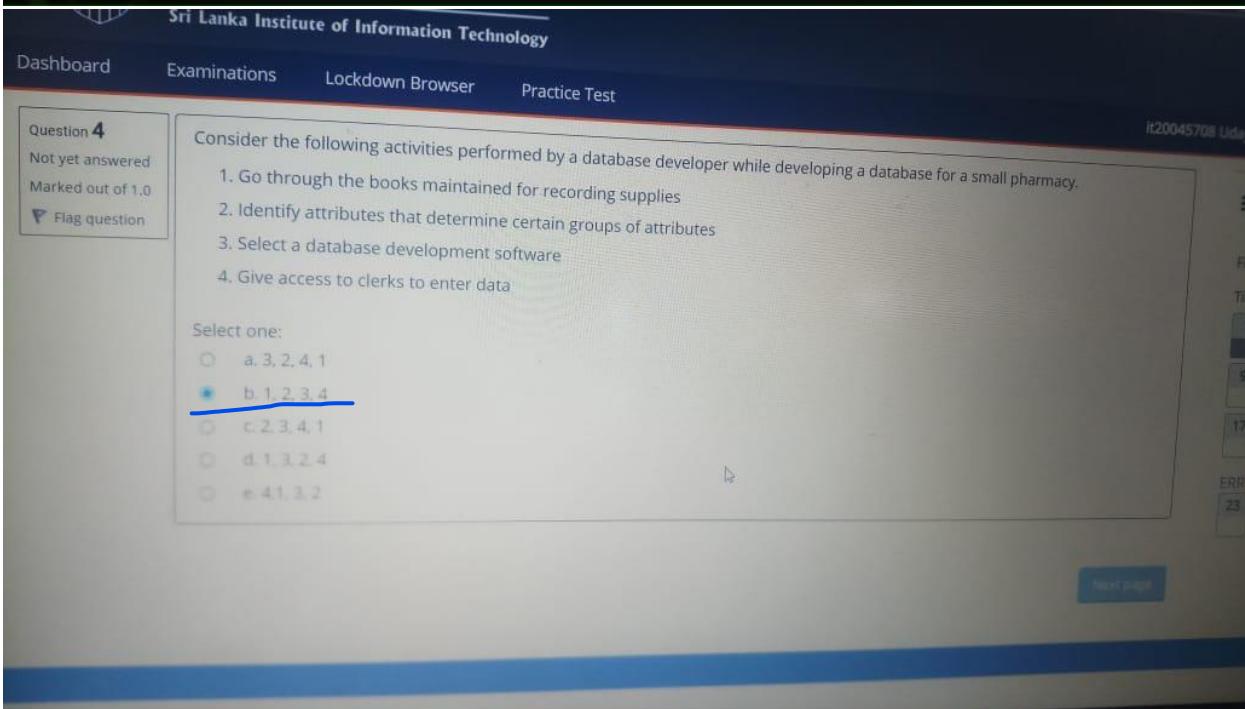
Question 4  
Not yet answered  
Marked out of 1.0

Consider the following activities performed by a database developer while developing a database for a small pharmacy.

1. Go through the books maintained for recording supplies
2. Identify attributes that determine certain groups of attributes
3. Select a database development software
4. Give access to clerks to enter data

Select one:

a. 3, 2, 4, 1  
 b. 1, 2, 3, 4  
 c. 2, 3, 4, 1  
 d. 1, 3, 2, 4  
 e. 4, 1, 3, 2



**Question 5**

Not yet answered  
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 Flag question

Consider the following relation  
Weather (CityID,temperature,city,condition)  
Which of the following query will return all the cities having temperature greater than the city 'Paris'.

Select one:

- a. select temperature> min(temperature)from weather  
where city='Paris'  
group by city
- b. SELECT city  
FROM weather  
WHERE city='Paris' and temperature > ALL (temperature)
- c. SELECT city  
FROM weather  
WHERE temperature > (SELECT temperature FROM weather WHERE city = 'Paris')
- d. SELECT city  
FROM weather  
WHERE temperature > EXISTS (SELECT \* FROM weather WHERE city = 'Paris')
- e. SELECT city  
FROM weather  
group by 'Paris'  
Having temperature > min(temperature)

*select  
select*

**Question 6**

Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following three table to store student enrolments in different courses.  
Student(EnrollNo, Name)  
Course(CourseID, Name)  
EnrollMents(EnrollNo, CourseID)

What does the following query do?

```
SELECT S.Name  
FROM Student S, Course C, Enrollments E  
WHERE S.EnrollNo = E.EnrollNo AND  
C.Name = "DBMS" AND  
E.CourseID = C.CourseID AND  
S.EnrollNo IN (SELECT S2.EnrollNo  
FROM Student S2, Course C2, Enrollments E2  
WHERE S2.EnrollNo = E2.EnrollNo AND  
E2.CourseID = C2.CourseID  
C2.Name = "OS")
```

Select one:

- a. Name of all students who are either enrolled in "DBMS" or "OS" or both.
- b. Name of all students who are either enrolled in "DBMS" or "OS" courses
- c. Name of all students who are enrolled in "DBMS"
- d. Name of all students who are enrolled in "DBMS" and "OS"

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Question 8  
Not yet answered  
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Flag question

Which answer gives the number of tables in the final relational model?

Select one:

- a. 8
- b. 7
- c. 6
- d. 5
- e. 4

Next page

NetExam: 2nd Year Repeat Mid-term Examination 2016 Sri Lanka Institute of Information Technology

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Question 9  
Not yet answered  
Marked out of 1.0  
Flag question

Consider the following requirements or a construction company:  
Company have multiple construction sites. Each site has a unique site number, address and construction type such as 'house', 'apartment', 'shopping complex'. For each site the company estimates the number the amounts required from each raw-material and these values are stored(ex: cement packs, sand, & etc.). Raw-materials have three different types such as wall-construction materials, wiring materials, Roofing materials and timber materials. Each material is identified by a unique ID and has a unit of measurement such as liters and kilograms. There are many suppliers providing raw materials for construction companies. The suppliers have are identified by a unique supplier id and each supplier has a name, address and a phone number. These are tracked by the construction company. However, during the construction company may purchase different amount of raw-materials for a site from different suppliers at different prices.

Which of the following are correct related to the EER diagram drawn for the above description.

Select one or more:

- a. There is a binary relationship between site and material with a descriptive attribute
- b. There are only binary relationships in the diagram
- c. Company is a strong entity in the EER
- d. There is a ternary relationship in the diagram
- e. Raw material types could be represented by sub classes

Next page

Dashboard Examinations Lockdown Browser Practice Test

Question 12  
Not yet answered  
Marked out of 1.0  
 Flag question

Consider the following EER diagram. Note that loyal customer and normal customer cover customer.

1  
2

option 2  
or  
1  
2

Which option below is the most appropriate mapping for the ISA hierarchy?

Select one:

a. Option 1  
 b. Option 4

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# Netexam

Sri Lanka Institute of Information Technology

Examinations Lockdown Browser Practice Test

Consider the following table :

Emp (eid, ename, designation, salary, deptName)

Consider the following SQL query on the emp table above:

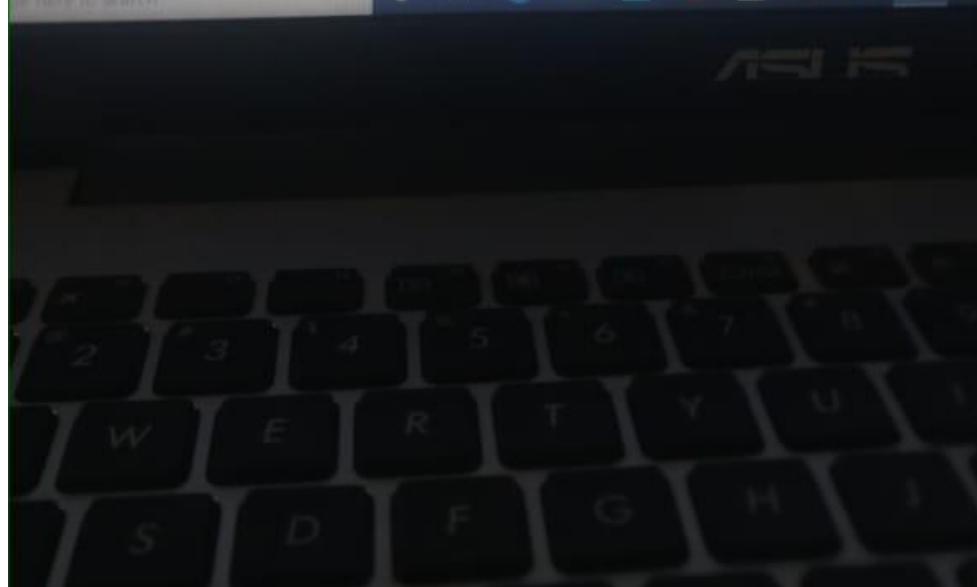
```
select deptName  
from Emp  
where designation = 'Manager'  
group by deptName  
having avg (salary) > (select avg (salary) from Empl)
```

It returns the names of the department in which

Select one:

- a. the average salary is more than the average salary in the company
- b. the average salary of managers is more than the average salary in the company
- c. the average salary of managers is more than the average salary of employees in the same department
- d. the average salary of managers is more than the average salary of all male employees in the company

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# NetExam

Sri Lanka Institute of Information Technology

[Dashboard](#)[Examinations](#)[Lockdown Browser](#)[Practice Test](#)

Question 15

Not yet answered

Marked out of 1.0

Flag question

Consider the following relation

CustomerSales(CustNo, SalesDate, SalesAmount, SalesRepNo, Location)  
with following set of functional dependencies,

$\text{CustNo}, \text{SalesDate} \rightarrow \text{SalesAmount}, \text{SalesRepNo}, \text{Location}$

$\text{SalesRepNo}, \text{SalesDate}, \text{SalesTime} \rightarrow \text{CustNo}$

$\text{Location}, \text{SalesDate}, \text{SalesTime} \rightarrow \text{SalesRepNo}, \text{CustNo}$

Identify candidate keys in the relation R.

Select one or more:

- a.  $(\text{Location}, \text{SalesDate}, \text{SalesTime})$
- b.  $(\text{CustNo}, \text{SalesDate})$
- c.  $\text{CustNo}, \text{SalesRepNo}$
- d.  $(\text{SalesRepNo}, \text{SalesDate}, \text{SalesTime})$
- e.  $(\text{CustNo})$



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# NetExam

Sri Lanka Institute of Information Technology

[Dashboard](#)[Examinations](#)[Lockdown Browser](#)[Practice Test](#)

Question 16

Not yet answered

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Flag question

Consider the following relation R

(R M, N, O, P, Q)

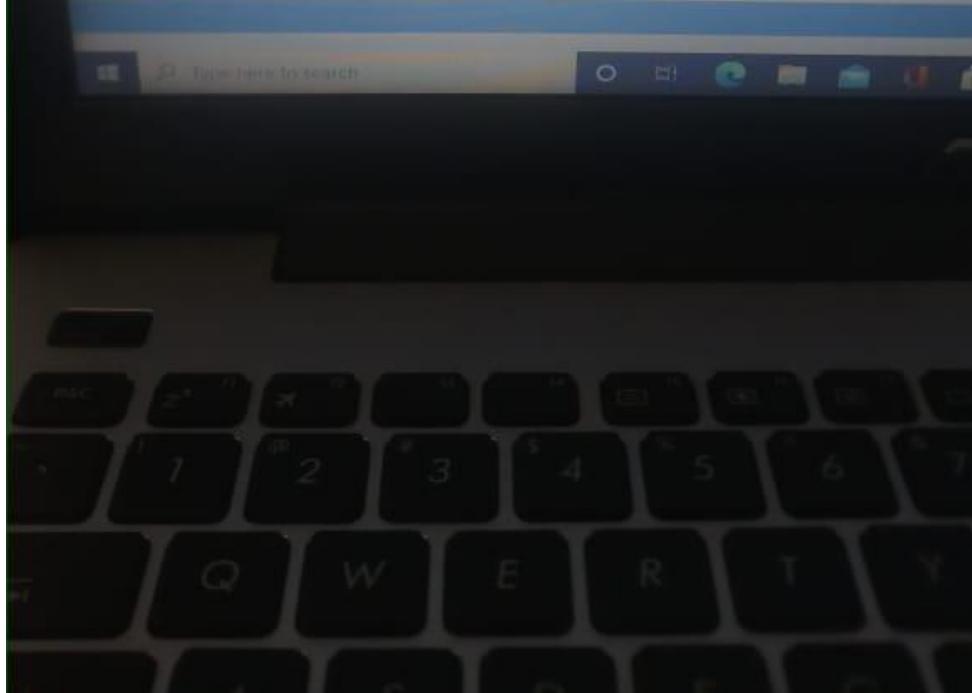
with following set of functional dependencies;

$F = (N \rightarrow M, M \rightarrow O, NO \rightarrow P, MO \rightarrow NQ)$

Identify the candidate keys for the relation R

Select one or more:

- a. M
- b. MO
- c. NO
- d. N
- e. O





## Online Exams

Sri Lanka Institute of Information Technology

Question 1

Not yet answered

Marked out of 1.0

Flag question

Backing up your SQL Server database is essential for

Select one:

- a. failing data
- b. protecting data.
- c. managing data
- d. replication of data
- e. preventing data.

Grade

X C I A



Sri Lanka Institute of Information Technology

Question 1

Not yet answered

Marked out of 2.5

Flag question

Consider a relation R (F1, F2, F3, F4, F5) with the following set of functional dependencies over R:

$F = \{ F2F3 \rightarrow F1F4F5, F4 \rightarrow F2 \}$ , Find all candidate keys that follow from the given FDs.

Select one:

- a. { F2F3, F4 }
- b. { F4 }
- c. { F2F3, F4F3 }
- d. { F4F3 }
- e. { F2F3 }

Question 1  
Not yet answered  
Marked out of 2.5  
 Flag question

Quiz na

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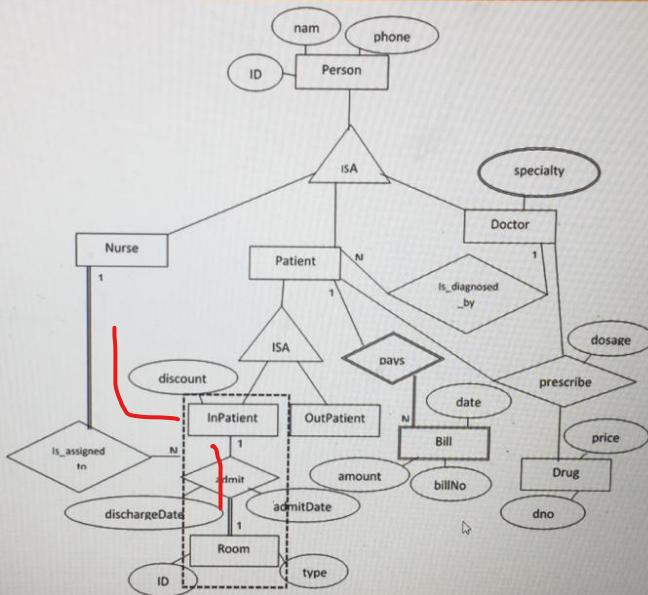
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Consider the following EER diagram.



When the above EER model is mapped to the relational model what would be the degree of the relation 'Room' resulted after the mapping? - 2

Select one:

## Sri Lanka Institute of Information Technology

Which of the following/s correct regarding the JDBC driver.

Select one or more:

- a. JDBC-ODBC Bridge plus ODBC driver, is also called Type 3 JDBC driver.
- b. There are 4 types of JDBC drivers.
- c. Type 2 driver or Native-API, partly Java driver, is the fastest driver.
- d. It contains classes and interfaces that help Java application and database.
- e. Type 2 of JDBC driver is typically used for development and testing purposes .



## Question 2

Not yet answered

Marked out of 2.5

 Flag question

Suppose you are given a relation R = (A, B, C, D) with the following functional dependencies:

$F = \{C \rightarrow BD, D \rightarrow A, A \rightarrow C\}$ . What is the highest Normal form Relation R in?

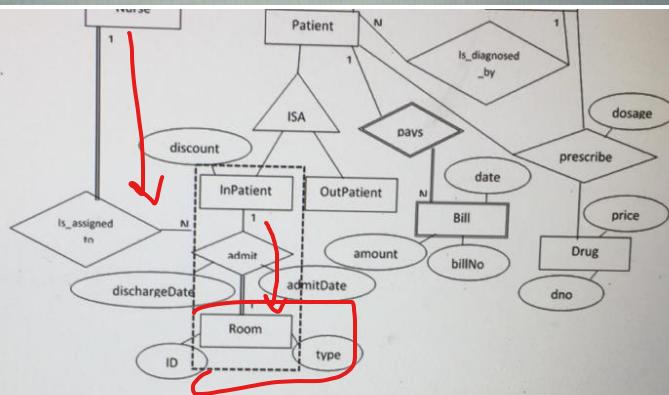
Select one:

- a. Unnormalized Form
- b. 1st Normal Form
- c. 3rd Normal Form
- d. BCNF
- e. 2nd Normal Form



Next

Consider the following EER diagram.



When the above EER model is mapped to the relational model what would be the degree of the relation 'Room' resulted after the mapping?

Select one:

- a. 3
- b. 2
- c. 6
- d. 5
- e. 4

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Sri Lanka Institute of Information Technology

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out of 1.0  
Question

Which of the following/s correct regarding the JDBC driver.

Select one or more:

- a. JDBC-ODBC Bridge plus ODBC driver, is also called Type 3 JDBC driver.
- b. Type 2 driver or Native-API, partly Java driver, is the fastest driver.
- c. Type 2 of JDBC driver is typically used for development and testing purposes .
- d. It contains classes and interfaces that help Java application and database.
- e. There are 4 types of JDBC drivers.

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Consider a relation R (A, B, C, D, E, F, G) with the following set of functional dependencies over R:  
 $F = \{ AB \rightarrow CDEFG, D \rightarrow B, D \rightarrow E, E \rightarrow FG \}$ . The corresponding BCNF relations are.

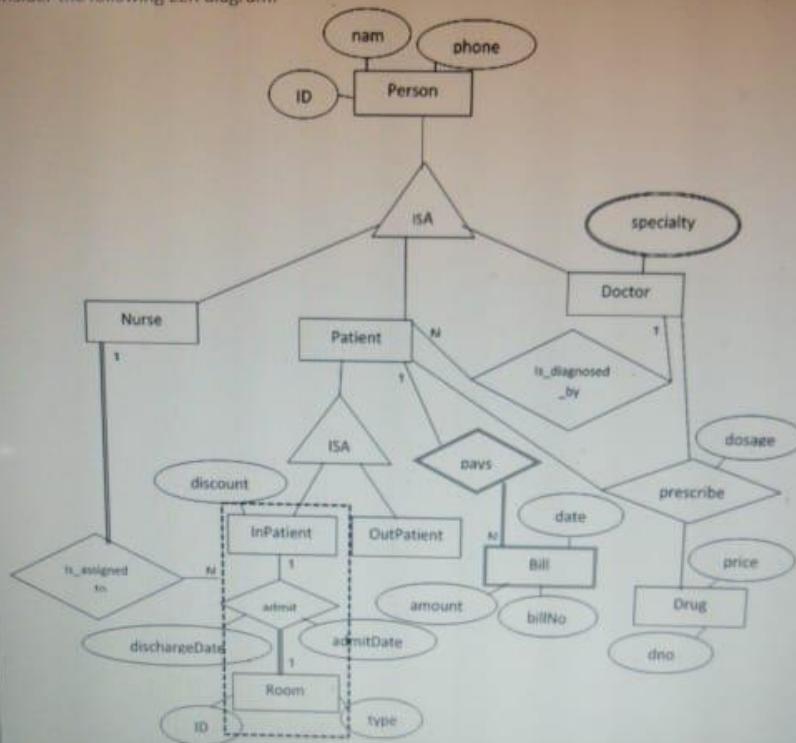
Select one:

- a. R1 (D, E), R2(A, B, C, D )
- b. R1 (E, F, G), R2 (A, B, C, D,E )
- c. R1 (E, F, G), R2 (D, E), R3 (A, B, C, D )
- d. R1 (A, B, C, D, E, F, G)
- e. R1 (E, F, G), R2 (D, E, B), R3 (A, C, D )

Next page

SO  
2  
ER

Consider the following EER diagram.





Which of the following/s correct regarding the JDBC driver.

Select one or more:

- a. JDBC-ODBC Bridge plus ODBC driver, is also called Type 3 JDBC driver.
- b. There are 4 types of JDBC drivers.
- c. Type 2 driver or Native-API, partly Java driver, is the fastest driver.
- d. It contains classes and interfaces that help Java application and database.
- e. Type 2 of JDBC driver is typically used for development and testing purposes .

**Question 1**

Not yet answered

Marked out of 2.5

[Flag question](#)

Consider a relation R (A, B, C, D, E, F, G, H) with the following set of functional dependencies over R:

$F = \{ABC \rightarrow DE, D \rightarrow B, E \rightarrow FGH, G \rightarrow F\}$ . What is the highest Normal form Relation R in?

Select one:

- a. BCNF
- b. 2nd Normal Form
- c. 1st Normal Form
- d. 3rd Normal Form
- e. Unnormalized Form

[Next page](#)**Quiz navigation**

MCQ QUESTIONS  
1 2 3 4

8 9 10 11

15 16 17 18

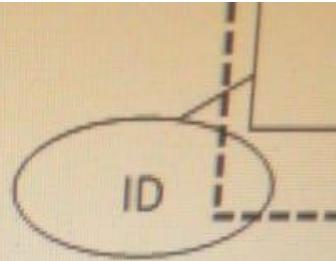
22 23 24 25

SQL  
26 27 28 29

ERROR REPORTING  
30

Finish attempt

Time left 1:59:49



When you map the above EER model, how many entities will you have?

Select one:

- a. 4
- b. 2
- c. 1
- d. 3
- e. None

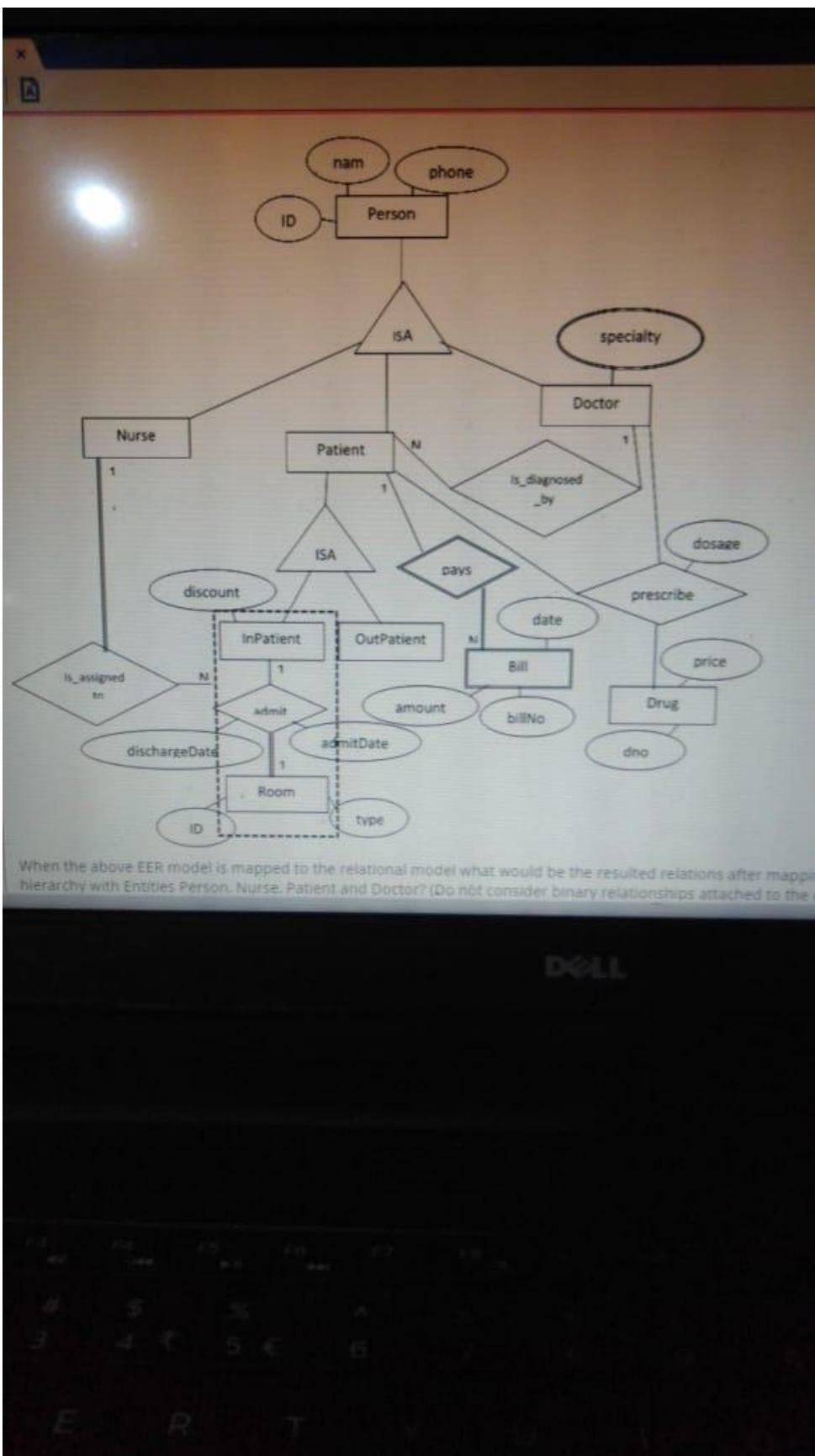


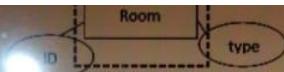
Consider a relation R (A, B, C, D, E, F, G) with the following set of functional dependencies over R:

$F = \{ AB \rightarrow C, A \rightarrow D, G \rightarrow A, B \rightarrow EFG \}$ , The corresponding BCNF relations are

Select one:

- a. R1(A, D), R2 (B, E, F, G), R3 ( A,B,C)
- b. R1 (A, D), R2 (B, E, F, G), R3 ( A,B, C, G)
- c. R1 (A, D), R2 (B, E, F, G), R3 ( A.G), R4 (B, C, G)
- d. R1 (A, D), R2 (B, E, F, G), R3 ( A.B, C), R4 ( A.G)
- e. R1(A, B C, D, E, F, G )

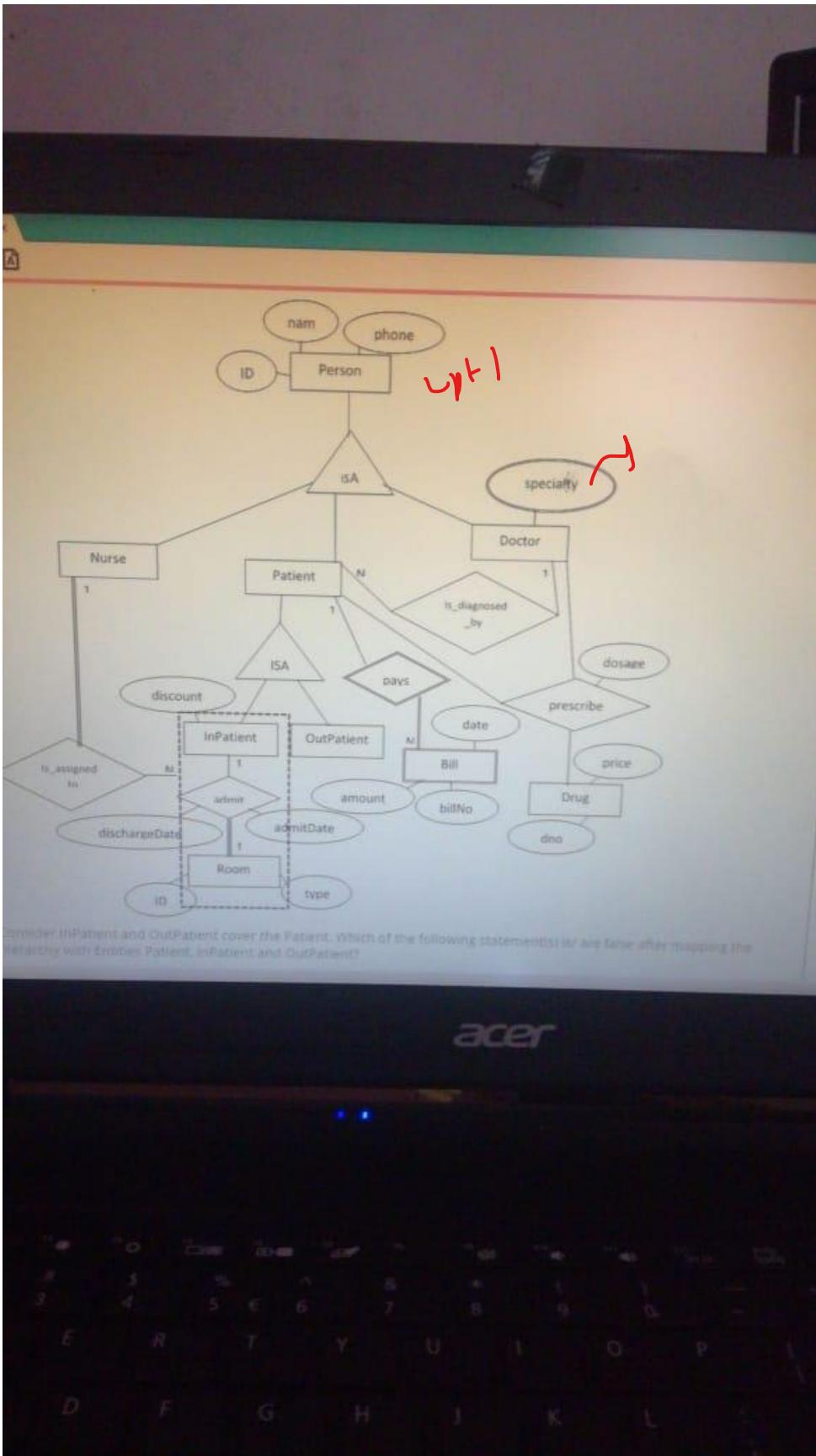




When the above EER model is mapped to the relational model what would be the resulted relations after mapping the hierarchy with Entities Person, Nurse, Patient and Doctor? (Do not consider binary relationships attached to the entities in hierarchy)

Select one:

- a. Nurse (ID, name, phone)  
Patient (ID, name, phone)  
Doctor (ID, name, phone)  
Doctor\_specialty (doctorID, specialty)
- b. Person (ID, name, phone)  
Nurse (nurseID)  
Patient (patientID)  
Doctor (doctorID, specialty)
- c. Person (ID, name, phone, Nurse, Patient, Doctor)  
Person\_specialty (ID, specialty)
- d. Person (ID, name, phone)  
Nurse (nurseID)  
Patient (patientID)  
Doctor (doctorID)  
Doctor\_specialty (doctorID, specialty)
- e. Person (ID, name, phonè, type)  
Person\_specialty (ID, specialty)



Consider InPatient and OutPatient cover the Patient. Which of the following statement(s) is/ are false after mapping the hierarchy with Entities Patient, InPatient and OutPatient?

Select one or more:

- a. Option 2 would have created relations for InPatient and OutPatient
- b. Option one would have created relations for InPatient, OutPatient and Patient
- c. Option 3 and option 4 will results in null values
- d. Option 3 is more suitable
- e. Option 4 would have created relation Person only

Next page

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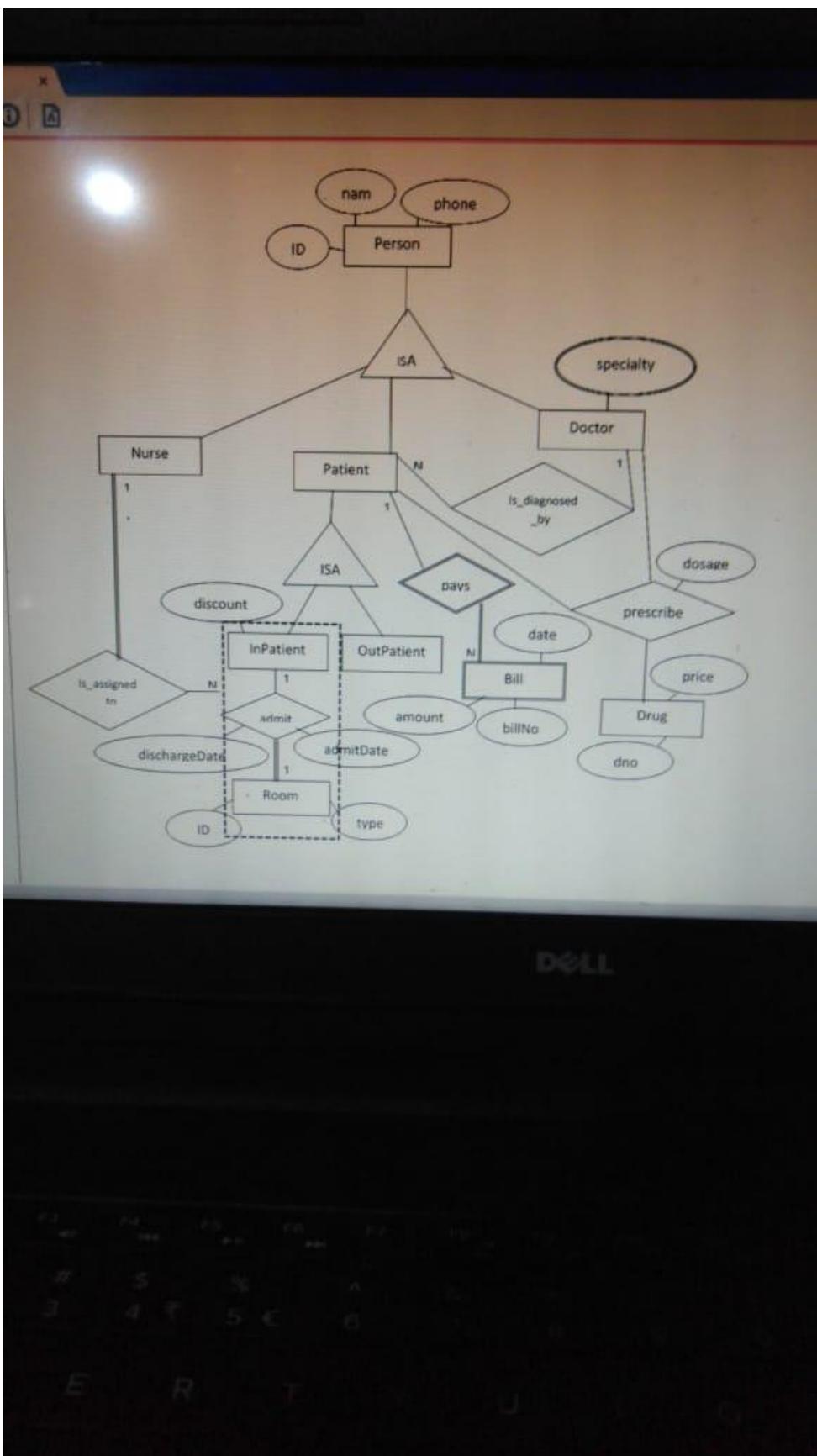
Suppose you are given a relation R = (F1, F2, F3, F4) with the following functional dependencies:

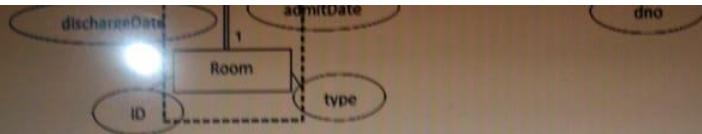
$F = \{ F_3F_4 \rightarrow F_2, F_2 \rightarrow F_1, F_1 \rightarrow F_3 \}$ , What are the candidate keys?

Select one:

- a. F1F4, F2F4
- b. F1F4
- c. F2F4
- d. F1F4, F2F4, F3F4
- e. F3F4

Next page





When you map the above EER model in to relational model how many foreign keys will the relation 'Prescribes' have?

Select one:

- a. None
- b. 4
- c. 1
- d. 3
- e. 2

[Next page](#)

In SQL server, backup of the source data can be created

1. On the same device
2. On another device
3. At some other location

Select one:

- a. Both 1 and 2
- b. Only 3
- c. Only 1
- d. All of them
- e. Only 2

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Question 6

Not yet answered

Marked out of 2.5

Flag question

Consider a relation R (F1, F2, F3, F4, F5 ) with the following set of functional dependencies over R:  
 $F = \{ F_2F_3 \rightarrow F_1F_4F_5, F_4 \rightarrow F_2 \}$ . What is the highest Normal form Relation R in?

Select one:

a. 3rd Normal Form

b. 2nd. Normal Form

c. 1st Normal Form

d. Unnormalized Form

e. BCNF

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Question 6

Not yet answered  
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Flag question

Select one:

a.

SELECT EmpID, EName

FROM Employee

WHERE Department='B' AND salary > ALL (SELECT salary

FROM Employee

WHERE Department = 'A'

)

b.

SELECT EmpID, EName

FROM Employee

WHERE Department='A' AND salary > ALL (SELECT salary

FROM Employee

WHERE Department = B

)



5

Answered  
out of 2.5  
question

Consider the following scenario:

A software company has been assigned with the responsibility of automating the tasks of a private bank. This include developing a database to record customer details, and an account details. Sunil, a senior DBA is assigned to the project to handle all the administrative tasks related to the databases by the database architect. Sunil creates the required databases and assigned Malika the responsibility of managing the bankDB. Malika assigns Keshan with the responsibility of creating tables. In addition, Keshan should be able to create views, stored procedures and triggers required. Asanka and Ferosh, who are data entry operators are given the responsibility of inserting the data to the table. Nihal is assigned with the responsibility of generating reports from the table in the data. For the above purpose, Nihal could directly query the data or call functions and procedures.

Which of the following/s should you need to provide the necessary permission to Asanka and Ferosh assuming that their usernames are asanka.n and Ferosh.a respectively

Select one or more:

- a. ALTER ROLE dataEntry ADD MEMBER asanka.n
- b. ALTER ROLE db\_owner add member ferosh.a
- c. GRANT INSERT on bankDB to dataEntry
- d. ALTER ROLE dataEntry ADD MEMBER Ferosh.a
- e. ALTER ROLE db\_owner add member asanka.n



Question 7

Not yet answered

Marked out of 1.0

Flag question

How can a DML statement (i.e. insert, delete, update) executed in the database?

Select one:

- a. By making use of the execute() statement of the DMLStatement object
- b. Using InsertStatement, DeleteStatement or UpdateStatement classes
- c. By invoking Insert(), update() and delete() method on a statement object.
- d. By invoking the executeInsert(), executeDelete() or executeUpdate() methods of the DMLStatement
- e. By invoking the execute() or executeUpdate() method on a statement object

Next page

When the above EER model is mapped to the relational model what would be the number of relations in the resulted schema? (Consider Inpatient and outpatient cover patient)

Select one:

- a. 12
- b. 11
- c. 9
- d. 7
- e. 10

When you map the above EER model in to relational model how many foreign keys will the relation 'Patient' be going to have?

Select one:

- a. 1
- b. None
- c. 2
- d. 3
- e. 4



## Question 6

Not yet answered

Marked out of 1.0

 Flag question

In SQL server, backup of the source data can be created

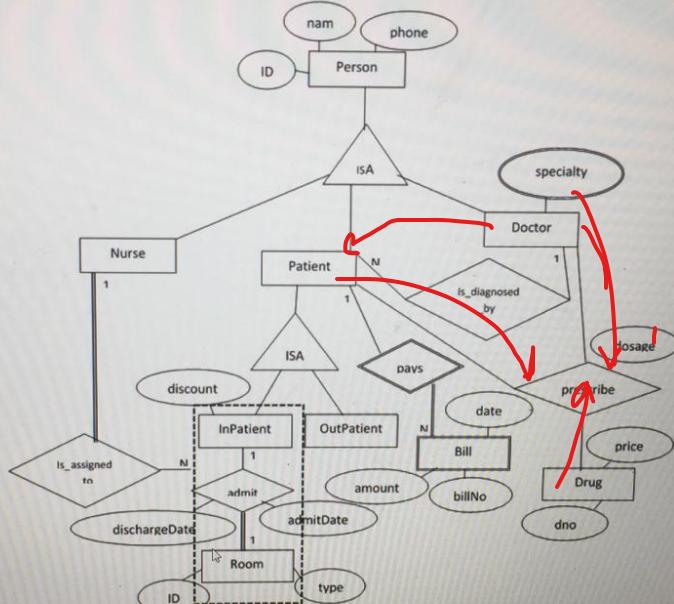
1. On the same device
2. On another device
3. At some other location

Select one:

- a. Only 1
- b. All of them
- c. Only 3
- d. Only 2
- e. Both 1 and 2

Answered  
of 2.5  
question

Consider the following EER diagram.



When the EER model above is mapped to the relational model what would be the primary key of relation 'Bill'?

≡ Quiz nav

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MCQ QUESTIONS

1	2	3
9	10	11
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25		

SQL

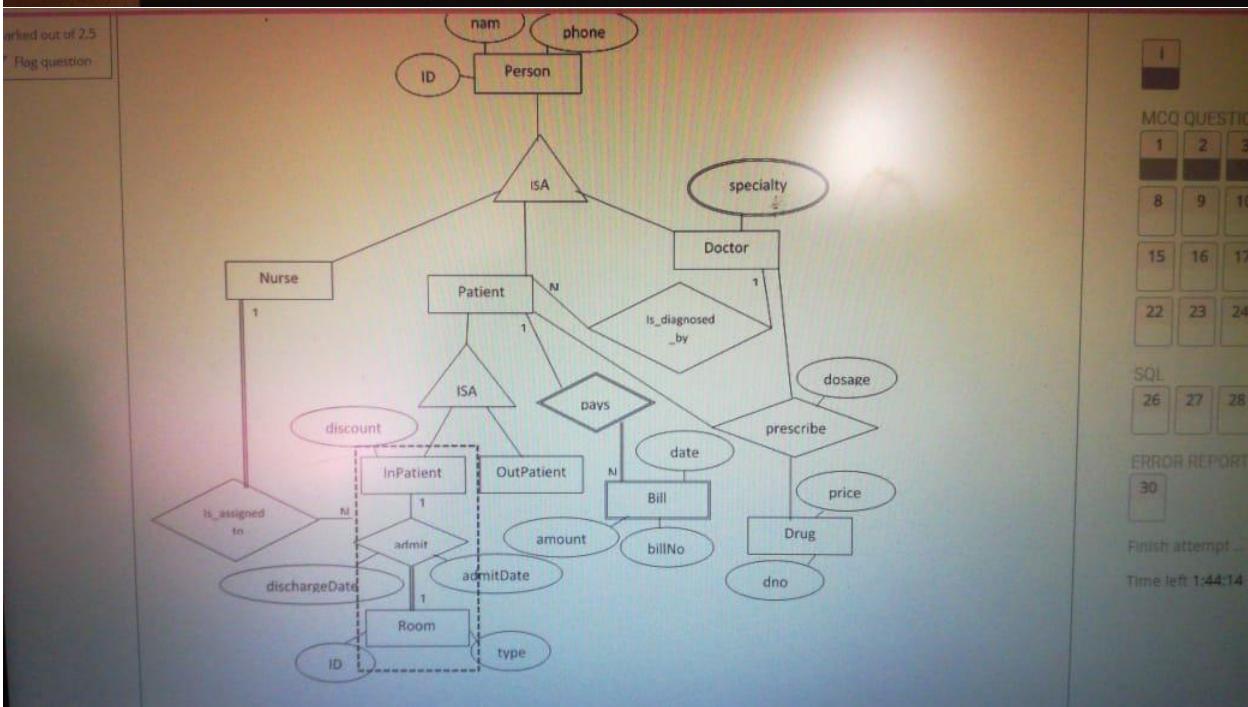
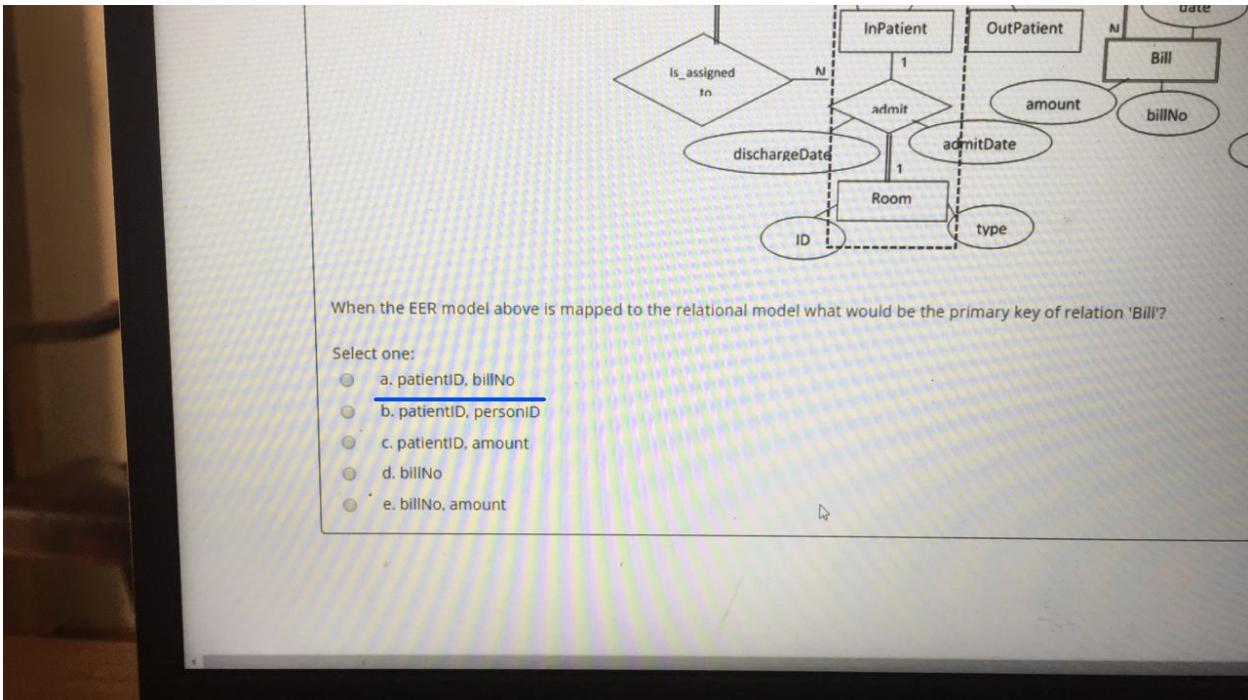
26	27	28	29
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ERROR REPORTING

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Finish attempt ...

Time left 1:43:46



Consider a relation R (A, B, C, D, E, F, G) with the following set of functional dependencies over R:

$F = \{ AB \rightarrow CDEFG, D \rightarrow B, D \rightarrow E, E \rightarrow FG \}$ . The corresponding 3rd Normal form relations are.

Select one:

- a. R1 (D, E), R2 (A, B, C, D)
- b. R1 (E, F, G), R2 (D, E), R3 (A, B, C, D )
- c. R1 (A, B, C, D, E, F, G)
- d. R1 (E, F, G), R2 (D, E, B), R3 (A, C, D )
- e. R1 (E, F, G), R2 (A, B, C, D,E )



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Question 8

Not yet answered

Marked out of 2.5

Flag question

Consider a relation R (F1, F2, F3, F4, F5) with the following set of functional dependencies over R:

$F = \{ F2F3 \rightarrow F1F4F5, F4 \rightarrow F2 \}$ . The corresponding 3rd Normal form relations are

Select one:

- a. R1 (F1, F2, F3, F4 ), R2 (F4, F2)
- b. R1 (F1, F2, F3, F4, F5 )
- c. R1 (F2, F4 ), R2 (F1, F3, F5)
- d. R1 (F2, F4 ), R2 (F1, F3,F4, F5)
- e. R1 (F2, F4 ), R2 (F1, F3,F4, F5), R3 (F2, F3 )

Next page

If InPatient and OutPatient cover Patient, what is the best option to map the hierarchy consisting Patient, InPatient and OutPatient?

Select one:

- a. Option 2
- b. Option 1 and Option 2
- c. Option 4
- d. Option 1
- e. Option 3

option 1-Subclasses have relation  
option 2- total cover

[Next page](#)

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**Question 3**  
Not yet answered  
Marked out of 2.5  
[Flag question](#)

Consider a relation R (A, B, C, D, E, F, G, H) with the following set of functional dependencies over R:  
 $F = \{ ABC \rightarrow DE, D \rightarrow B, E \rightarrow FGH, G \rightarrow F \}$ . Find all candidate keys that follow from the given FDs.

Select one:

- a. (DE)
- b. (DEG)
- c. (ABC, DEG)
- d. (ABC)
- e. (ABC, DE)

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**Quiz navigation**  
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7

Answered  
out of 2.5  
question

Consider a relation R (F1, F2, F3, F4, F5 ) with the following set of functional dependencies over R:

$F = \{ F2F3 \rightarrow F1F4F5, F4 \rightarrow F2 \}$  ,Find all candidate keys that follow from the given FDs.

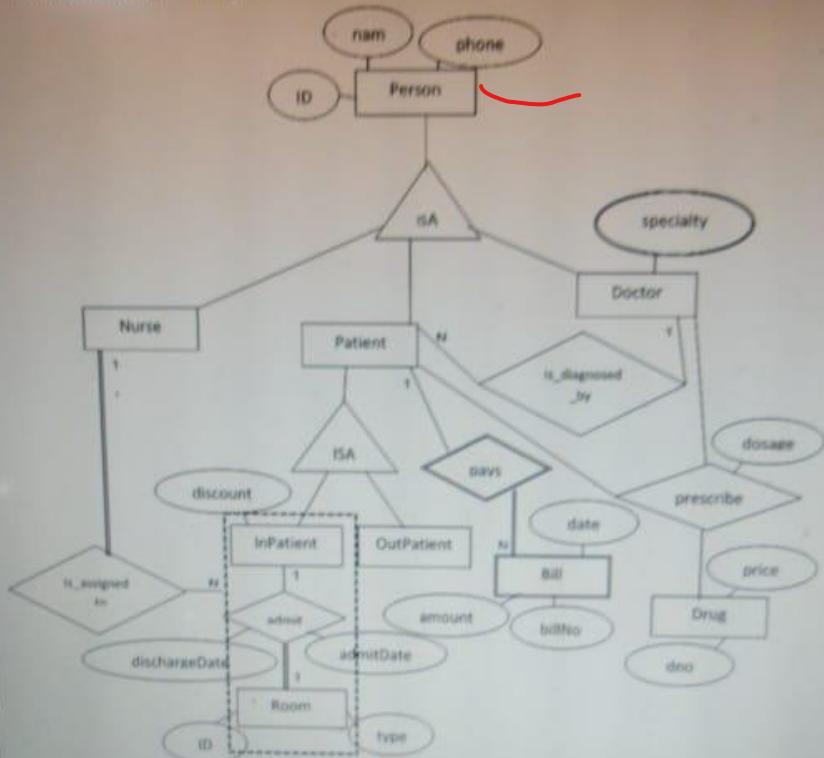
Select one:

- a. { F4 }
- b. { F2F3, F4F3 }
- c. { F4F3 }
- d. { F2F3 }
- e. { F2F3, F4 }

$F4F3 \rightarrow F5F2F4F3$

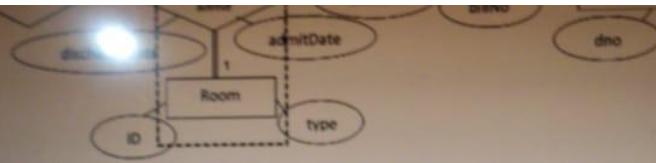
[Next page](#)

Consider the following EER diagram.



DELL

1 2 3 4 5 6  
W E R T Y U I



What is the best option to map the hierarchy consisting Person, Nurse, Patient and Doctor?

Select one:

- a. Option 3
- b. Option 4
- c. Option 1 and Option 2
- d. Option 2
- e. Option 1

[Next page](#)

Products

For Teams

Search

there are 4 options you can use to map this into an ER,

#### option 1

- Person(**SIN**,Name)
- Student(**SIN**,GPA)
- Teacher(**SIN**,Salary)

**option 2** Since this is a covering relationship, option 2 is not a good match.

- Student(**SIN**,Name,GPA)
- Teacher(**SIN**,Name,Salary)

#### option 3

- Person(**SIN**,Name,GPA,Salary,Person\_Type) *person type can be student/teacher*

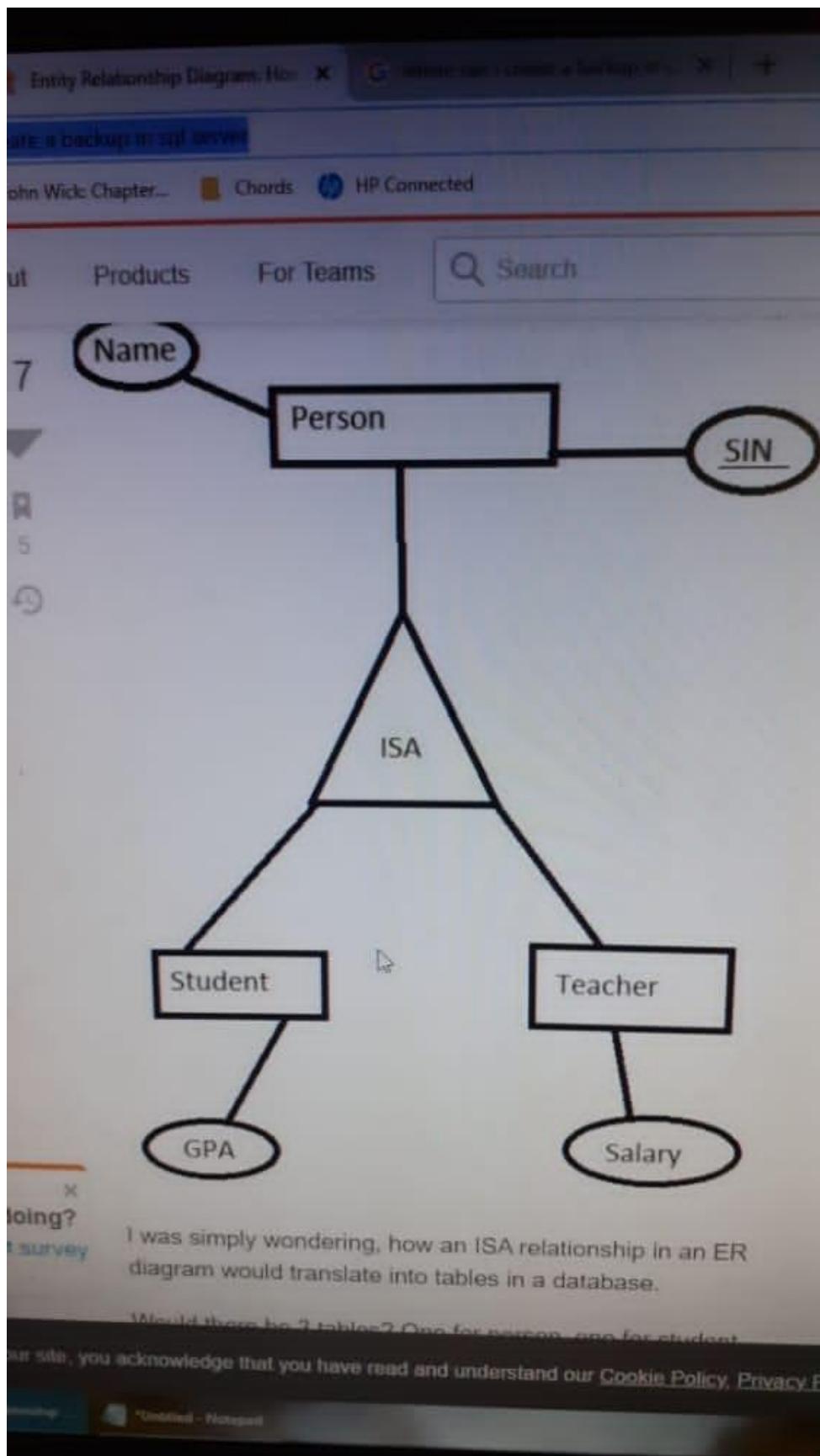
#### option 4

- Person(**SIN**,Name,GPA,Salary,Student,Teacher)  
*Student and Teacher are bool type fields, it can be yes or no, a good option for overlapping*

Since the sub classes don't have much attributes, option 3 and option 4 are better to map this into an ER

e, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy P](#)

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Question 10  
Not yet answered  
Marked out of 2.5  
Flag question

Consider a relation R (A, B, C, D, E, F, G) with the following set of functional dependencies over R:  
 $F = \{ AB \rightarrow CDEFG, D \rightarrow B, D \rightarrow E, E \rightarrow FG \}$ . The corresponding 3rd Normal form relations are.

Select one:

a. R1 (E, F, G), R2 (D, E), R3 (A, B, C, D )  
 b. R1 (E, F, G), R2 (D, E, B), R3 (A, C, D )  
 c. R1 (E, F, G), R2 (A, B, C, D,E)  
 d. R1 (A, B, C, D, E, F, G)  
 e. R1 (D, E), R2 (A, B, C, D)

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Moodle

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The diagram illustrates an Entity-Relationship (EER) model with the following components:

- Entities:** InPatient, OutPatient, Room, and Bill.
- Relationships:**
  - A relationship named "discount" connects InPatient and OutPatient.
  - A relationship named "admit" connects InPatient and Room, with multiplicity 1 at InPatient and N at Room.
  - A relationship named "is\_assigned\_to" connects InPatient and Room, with multiplicity M at InPatient and 1 at Room.
  - A relationship named "dischargeDate" connects InPatient and Room.
  - A relationship named "admitDate" connects Room and Bill, with multiplicity 1 at Room and N at Bill.
  - A relationship named "days" connects Room and Bill, with multiplicity 1 at Room and N at Bill.
  - A relationship named "amount" connects Bill and Room.
- Attributes:** discount, days, date, amount, billNo, ID, and type.

When the above EER model is mapped to the relational model what would be the schema?

Select one:

- a. 11
- b. 12
- c. 7
- d. 10
- e. 9

When the above EER model is mapped to the relational model what would be the number of relations in the resulted schema?

Select one:

- a. 11
- b. 12
- c. 7
- d. 10
- e. 9

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Moodle

Online Exams  
Sri Lanka Institute of Information Technology

Question 3  
Not yet answered  
Marked out of 2.5  
Flag question

Consider a relation R (A, B, C, D, E, F, G, H) with the following set of functional dependencies over R:  
 $F = \{ ABC \rightarrow DE, D \rightarrow B, E \rightarrow FGH, G \rightarrow F \}$ . Find all candidate keys that follow from the given FDs.

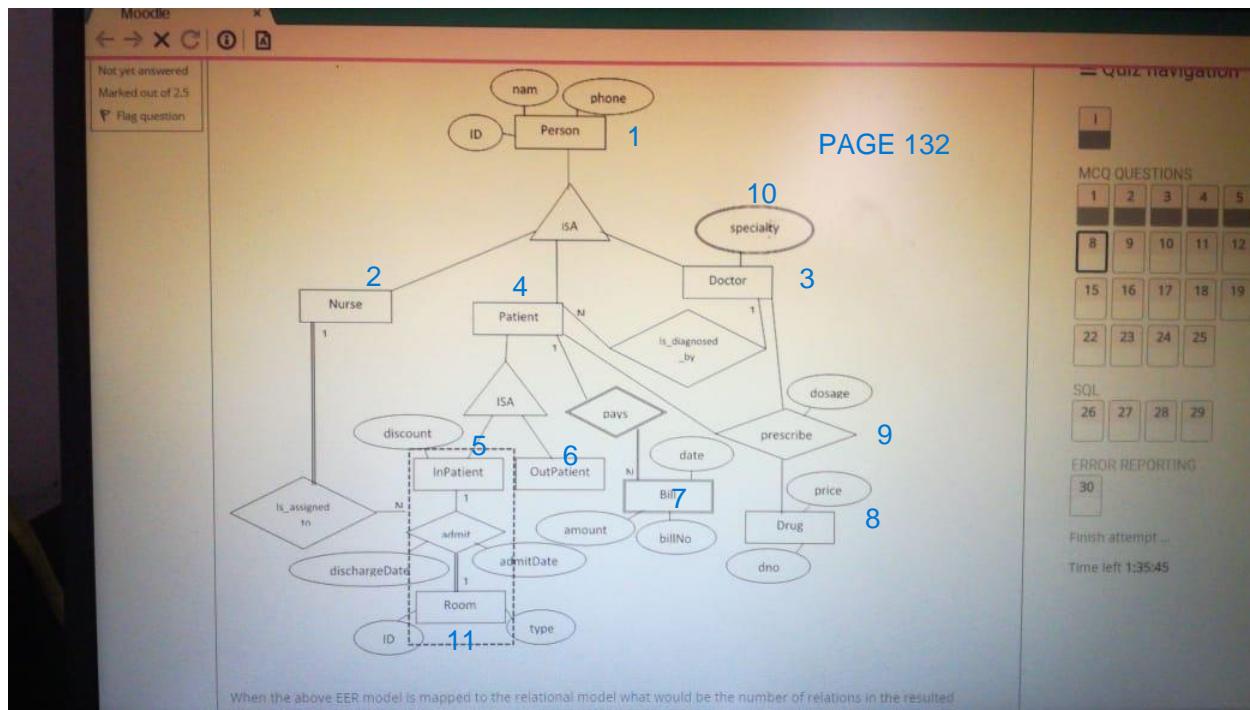
Select one:

- a. (DE)
- b. (DEG)
- c. (ABC, DEG)
- d. (ABC)
- e. (ABC, DE)

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Quiz navigation

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22 23 24 25
SQl 26 27 28 29
ER/UML REPORTING 30



## Online Exams

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Which of the following/s correct regarding the JDBC driver.

Select one or more:

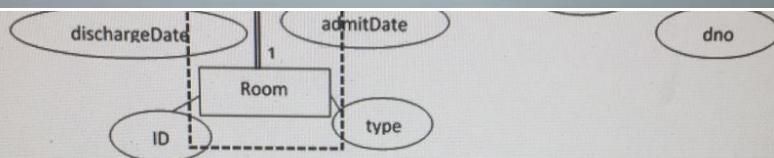
- a. Type 2 of JDBC driver is typically used for development and testing purposes .
- b. JDBC-ODBC Bridge plus ODBC driver, is also called Type 3 JDBC driver.
- c. There are 4 types of JDBC drivers.
- d. It contains classes and interfaces that help Java application and database.
- e. Type 2 driver or Native-API, partly Java driver, is the fastest driver.



Which of the following/s correct regarding the JDBC driver.

Select one or more:

- a. JDBC-ODBC Bridge plus ODBC driver, is also called Type 3 JDBC driver.
- b. There are 4 types of JDBC drivers.
- c. Type 2 driver or Native-API, partly Java driver, is the fastest driver.
- d. It contains classes and interfaces that help Java application and database.
- e. Type 2 of JDBC driver is typically used for development and testing purposes .

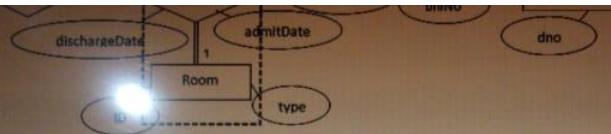


REF PAGE 131

Which of the following is resulted for the Prescribes relation when the ...

Select one:

- a. Prescribes (patientID, drugID, doctorID, dosage)
- b. Prescribes (patientID, drugID, doctorID)
- c. Prescribes (ID, dosage)
- d. Prescribes (ID, dosage)
- e. Prescribes (patientID, drugID, doctorID, dosage)



Time left 1:12:41

When the above EER model is mapped to the relational model what would be the resulted relations after mapping the hierarchy with Entities Patient, InPatient and OutPatient? (Do not consider binary relationships attached to the entities in hierarchy)

Select one:

- a. Patient(patientID)  
InPatient (ID, discount)  
OutPatient (ID)
- b. Patient (patientID)  
InPatient (ID, discount)  
OutPatient (ID)
- c. Patient (patientID, discount, type)
- d. Patient (patientID, discount, InPatient, OutPatient)
- e. InPatient (ID, discount)  
OutPatient (ID)

[Next page](#)

Fixed database role that authorizes a user to access the database, but not to manage database level security is :

Select one:

- a. processadmin
- b. serveradmin
- c. securityadmin
- d. db\_accessadmin

28  
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question

Consider the following relations of a database created for a **Car Rental** company.

**Driver** (driverID: char(4), driver\_name: varchar(15), address: varchar(50), phone: char(10), licenceNo: char(5))

**Car** (carID: char(4), make: varchar(15), model: varchar(15), body\_type: varchar(15), no\_seats: int, year: datetime)

**Route** (route\_id: char(4), source: varchar(20), destination: varchar(20), route\_type: varchar(15), fare: real)

**Customer** (customerID: char(4), customer\_name: varchar(20), phone: char(10), address: varchar(50))

**Booking** (booking\_id: char(4), dateBooked: datetime, dateReturned: datetime, customerID: char(4), route\_id: char(4), car\_id: char(4), driverID: char(4))

The database stores information on Drivers registered by the car rental company in the **Driver** table. The table stores a unique driver ID (driverID), name, address, phone number and the driving license number. Information about the Cars is recorded in the **Car** table. The table includes a unique number (carID), make ('Toyota', 'Honda', 'Audi', etc.), model ('Aqua', 'Civic' etc.), body type ('Wagon', 'Hatchback' etc.), number of seats, and the year manufactured. **Route** table stores all the operations on car routes including a unique number (route\_id), route source, route destination, route type ('one way' or 'both ways') and the fare amount. Information about the Customers is also documented in the **Customer** table. The table consists of a unique number (customerID), customer name, phone number and address. When a Customer wants to rent a car the company stores the records in a **Booking** table along with the unique number (booking\_id), date of which the booking happened, the return date of the car, the customer who elaborate in renting the car (customerID), the route in which the car is traveling (route\_id), the car ID (car\_id) and the driver who is dedicated for driving the car (driverID).

Create a trigger to update the noOfRoutes of a driver when adding a new record to the Booking table. Assume that there exists a stored procedure to update the total number of routes (noOfRoutes) of a driver based on the route entries recorded in the Booking table. The Driver table is modified by adding a new attribute (noOfRoutes: int).

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MCQ QUESTIO

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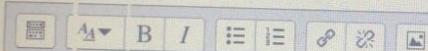
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'both ways') and the fare amount. Information about the Customers is also documented in the **Customer** table. The table consists of a unique number (customerID), customer name, phone number and address. When a Customer wants to rent a car the company stores the records in a **Booking** table along with the unique number (booking\_id), date of which the booking happened, the return date of the car, the customer who elaborate in renting the car (customerID), the route in which the car is traveling (route\_id), the car ID (car\_id) and the driver who is dedicated for driving the car (driverID).

Create a trigger to update the cost of a route when modifying a record to the Booking table. Assume that there exists a stored procedure to check the approval of the new discount amount.

The company can grant a discount fare amount to customers for a given time period. The discount amount is assessed based on a condition. If the route type is 'two ways' a discount amount is 8% of the existing fare amount.

The request is directed for approval during the month of November.



```
create trigger UpdateCost
on Booking
for update insert
as
begin|
```