

Online Exams

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Which of the following are true about a Weak entity?

Select one or more:

- a. It depends on another strong entity
 - b. It is also a strong entity with a Partial Key
- c. Each entity in the Weak entity-set must participate in at least, and at most one relationship instance with the other side.
- d. It can participate in any kind of relationship as 1:1, 1:M, M:N
- e. It has a Partial Key which is marked using a dashed underline

Next page



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Consider the following schema which provides information about employees and departments

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, percentage_time: integer)

Dept (did: integer, dname: string, budget: real)

Find the most suitable SQL query for the given question.

Find the highest salary value of an employee

Select one

- a. SELECT salary FROM Emp WHERE TOTAL(salary):
- b. SELECT salary FROM Emp WHERE MAX(salary):
- C. SELECT SUM(salary) FROM Emp:
- d SELECT MAX(salary) FROM Emp:

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INSTRUCTIONS

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EXAM FEEDBACK

24

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Time left 1:58:59



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Which of the following is/are incorrect?

- a. Increased efficiency and effectiveness of teams was enabled by groupware-office automation systems. Select one or more:
- b. Rapid advances in speed and capacity was enabled by pervasiveness of internet. c. Anytime, anywhere work capability was enabled by wireless, portable devices.
 - - d. E-enabled world was enabled by advancement of technology.



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Which of the following is/are incorrect?

Select one or more:

- a. E-enabled world was enabled by advancement of technology.
- b. Increased efficiency and effectiveness of teams was enabled by groupware-office automation systems.
- c. Anytime, anywhere work capability was enabled by wireless, portable devices.
- d. Rapid advances in speed and capacity was enabled by pervasiveness of internet.



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Question 3

Not yet answered Marked out of 3.00

P Flag question

Cloud based systems do not provide,

Select one:

- a. Cloud based backup and recovery solutions.
- b. Capability of purchasing computing capacity on-demand.
- c. Entire computing infrastructure over the Internet.
- d. Personalized software which specifically developed for the firms.

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Consider the following schema which provides information about employees and departments

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, percentage_time: integer)

Dept (did: integer, dname: string, budget: real)

Find the most suitable SQL query for the given question.

Find the names of employees who works in a department which has a budget over Rs. 50,000.00

Select one:

- a. SELECT e.ename FROM emp e. works w. Dept d WHERE e.eid=w.eid AND w.did=d.did HAVING d.budget>50000:
- b. SELECT e.ename FROM emp e. works w. Dept d WHERE e.eld=w.eld AND w.did=d.did AND d.budget>50000;
- c. SELECT e.ename FROM emp e, works w. Dept d WHERE d.budget>50000;
- d. SELECT e.ename FROM emp e, Dept d WHERE d.budget>50000:

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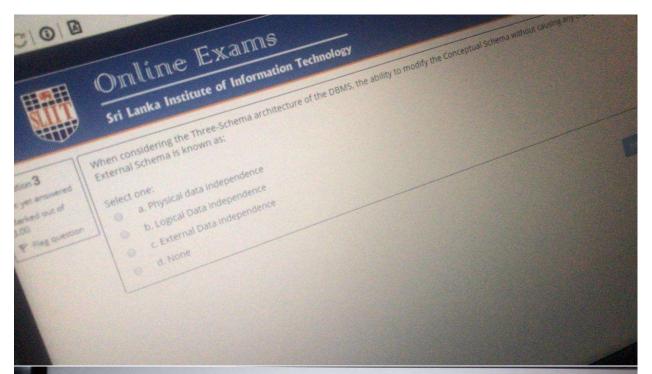
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PART 21

EXAN 24

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COUNT()

SELECT COUNT column_name)
FROM table_name;

COUNT() is a function that takes the name of a column as an argument and counts the number of rows where the column is not NULL.

CREATE TABLE

CREATE TABLE table_name (
 column_1 datatype,
 column_2 datatype,
 column_3 datatype
);

CREATE TABLE creates a new table in the database. It allows you to specify the name of the table and the name of each column in the table.

BETWEEN

```
SELECT column_name s

FROM table_name
WHERE column_name BETWEEN value_1 AND value_2;
```

The BETWEEN operator is used to filter the result set within a certain range. The values can be numbers, text or dates.

CASE

```
SELECT column_name,

CASE

WHEN condition THEN 'Result_1'

WHEN condition THEN 'Result_2'

ELSE 'Result_3'

END

FROM table_name;
```

CASE statements are used to create different outputs (usually in the SELECT statement). It is SQL's way of handling if-then logic.

DELETE

```
DELETE FROM table_name
WHERE some_column = some_value;
```

DELETE statements are used to remove rows from a table.

GROUP BY

SELECT column_name, COUNT(*)
FROM table_name
GROUP BY column_name;

GROUP BY is a clause in SQL that is only used with aggregate functions. It is used in collaboration with the SELECT statement to arrange identical data into groups.

LIKE

```
SELECT column_name(s)
FROM table_name
WHERE column_name LIKE pattern;
```

LIKE is a special operator used with the WHERE clause to search for a specific pattern in a column.

LIMIT

```
SELECT column_name(s)
FROM table_name
LIMIT number;
```

LIMIT is a clause that lets you specify the maximum number of rows the result set will have.

HAVING

```
SELECT column_name, COUNT(*)
FROM table_name
GROUP BY column_name
HAVING COUNT(*) > value;
```

 $\mbox{\sc HAVING}$ was added to SQL because the $\mbox{\sc WHERE}$ keyword could not be used with aggregate functions.

INNER JOIN

```
SELECT column_name(s)
FROM table_1
JOIN table_2
ON table_1.column_name = table_2.column_name;
```

An inner join will combine rows from different tables if the *join condition* is true

OR

```
SELECT column_name

FROM table_name

WHERE column_name = value_1

OR column_name = value_2;
```

OR is an operator that filters the result set to only include rows where either condition is true.

ORDER BY

```
SELECT column_name
FROM table_name
ORDER BY column_name ASC | DESC;
```

ORDER By is a clause that indicates you want to sort the result set by a particular column either alphabetically or numerically.

INSERT

```
INSERT INTO table_name (column_1, column_2, column_3)
VALUES (value_1, 'value_2', value_3);
```

INSERT statements are used to add a new row to a table.

IS NULL / IS NOT NULL

```
SELECT column_name(s)
FROM table_name
WHERE column_name IS NULL;
```

IS NULL and IS NOT NULL are operators used with the WHERE clause to test for empty values.

SELECT

SELECT column_name
FROM table_name;

SELECT statements are used to fetch data from a database. Every query will begin with SELECT.

SELECT DISTINCT

SELECT DISTINCT column_name FROM table_name;

SELECT DISTINCT specifies that the statement is going to be a query that returns unique values in the specified column(s).

MAX()

SELECT MAX(column_name)
FROM table_name;

MAX() is a function that takes the name of a column as an argument and returns the largest value in that column.

MIN()

SELECT MIN(column_name)
FROM table_name;

MIN() is a function that takes the name of a column as an argument and returns the smallest value in that column.

OUTER JOIN

```
SELECT column_name(s)
FROM table_1
LEFT JOIN table_2
ON table_1.column_name = table_2.column_name;
```

An outer join will combine rows from different tables even if the join condition is not met. Every row in the *left* table is returned in the result set, and if the join condition is not met, then NULL values are used to fill in the columns from the *right* table.

ROUND()

SELECT ROUND(column_name, integer)
FROM table_name;

ROUND() is a function that takes a column name and an integer as arguments. It rounds the values in the column to the number of decimal places specified by the integer.



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Question 10
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Consider the following schema which provides information about employees and departments

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, percentage_time: integer)

Dept (did: integer, dname: string, budget: real)

Find the most suitable SQL query for the given question.

Find the highest percentage of time worked on by an employee

Select one:

a. SELECT SUM(percentage_time) FROM Works.

b SELECT percentage_time FROM Works WHERE SUM(percentage_time);

c, SELECT MAX(percentage_time) FROM Works.

d. SELECT percentage_time FROM Works WHERE MAX(percentage_time);

SUM

```
SELECT SUM column_name)
FROM table_name;
```

SUM() is a function that takes the name of a column as an argument and returns the sum of all the values in that column.

UPDATE

```
UPDATE table_name

SET some_column = some_value

WHERE some_column = some_value;
```

UPDATE statements allow you to edit rows in a table.

WHERE

```
SELECT column_name(s)
FROM table_name
WHERE column_name operator value;
```

WHERE is a clause that indicates you want to filter the result set to include only rows where the following condition is true.

WITH

```
WITH temporary_name AS (
SELECT *
FROM table_name)
SELECT *
FROM temporary_name
WHERE column_name operator value;
```

WITH clause lets you store the result of a query in a temporary table using an alias. You can also define multiple temporary tables using a comma and with one instance of the WITH keyword.



Ontune Exams

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You are given the following details as requirements for the database for a Car-Insuarance Company.

A car-insurance company has several Cars registered with them by their owners. These customers own one or more cars each. But a given car is owned by only one owner. A customer has an ID, address, name and multiple contact numbers. Each car has details of it's License number, model and the manufactured year stored. The company need to keep track of the accidents that happens to each car separately. Each car can have zero to any number of recorded accidents. And for each accident the car participates in they need to keep track of the Unique Report number, location, date and damage amount of the accident.

Construct the ER diagram for the Car-Insuarance company database and find the answers for the following questions.

- 1. What are the correct entities for the ER diagram?
- Owner, Car
- Owner, Car, Accident
- Owner, Car, InsuaranceCompany
- InsuaranceCompany, Car, Accident
- 2. What is correct about the Relationships for the ER diagram?
- Owner:Car is 1:M

Consider the following schema which provides information about employees and departments

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, percentage_time: integer)

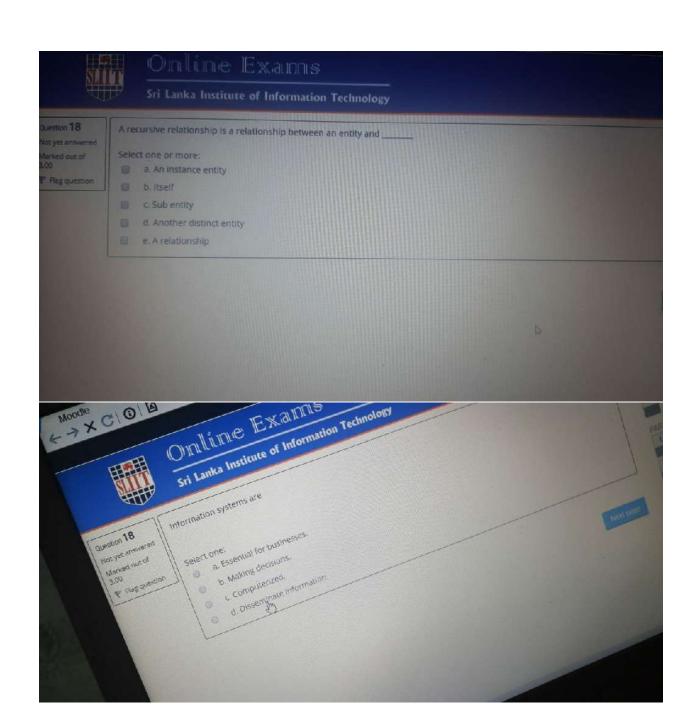
Dept (did: integer, dname: string, budget: real)

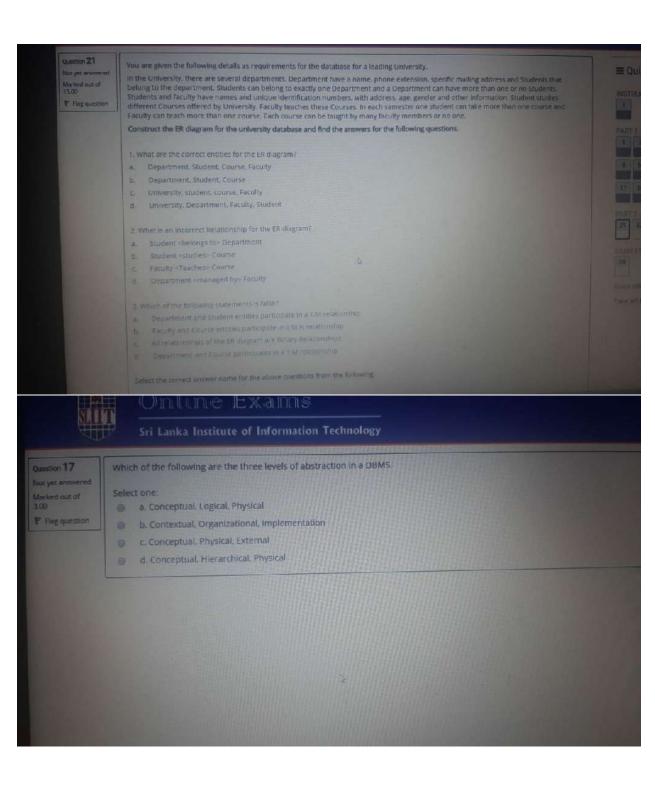
Find the most suitable SQL query for the given question.

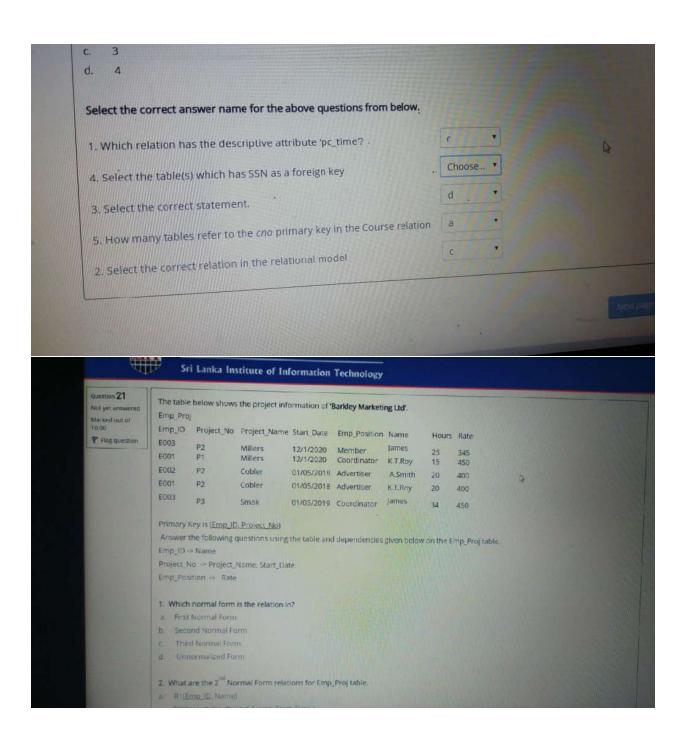
Find the names of the employees who work more than 20% of their time in a department.

Select one:

- a. SELECT e.ename FROM emp e. works w WHERE w.pct_time>20;
- b. SELECT e.ename FROM emp e, works w GROUP 8Y w.pct_time>20:
- c. SELECT e.ename, w.pct_time>20 FROM emp e. works w WHERE e.eid=w.eid;
- d. SELECT e.ename FROM emp e. works w WHERE e.eid=w.eid AND w.pct_time>20;









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You are given the following details as requirements for the database for a leading University.

in the University, there are several departments. Department have a name, phone extension, specific mailing address and Students that belong to the department. Students can belong to exactly one Department and a Department can have more than one or no Students. Students and faculty have names and unique identification numbers, with address, age, gender and other information. Student studies different Courses offered by University. Faculty teaches these Courses. In each semester one student can take more than one course and Faculty can teach more than one course. Each course can be taught by many faculty members or no one.

Construct the ER diagram for the university database and find the answers for the following questions.

- 1. What are the correct entities for the ER diagram?
- Department, Student, Course, Faculty
- Department, Student, Course
- University, student, course, Faculty
- University, Department, Faculty, Student
- 2. What is an incorrect Relationship for the ER diagram?



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The table below shows the project information of 'Barkley Marketing Ltd'.

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Emp_ID	Project_No	Project_Name	Start_Date	Emp_Position	Name	Hours	Rate
E003	P2	Millers	12/1/2020	Member	James	25	345
E001	P1	Millers	12/1/2020	Coordinator	K.T.Roy	15	450
E002	P2	Cobler	01/05/2018	Advertiser	A.Smith	20	400
E001	P2	Cobler	01/05/2018	Advertiser	K.T.Roy	20	400
E003	P3	Smak	01/05/2019	Coordinator	James	34	450

Primary Key is (Emp_ID_Project_No)

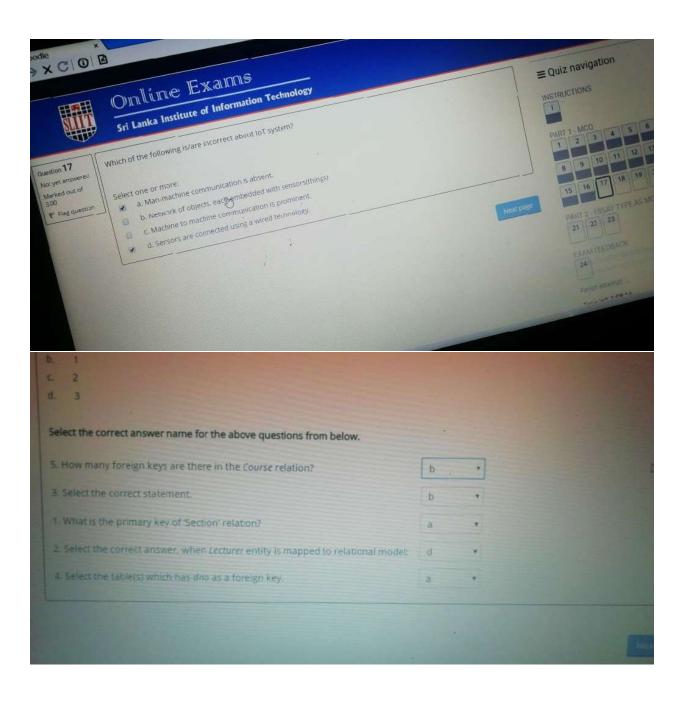
Answer the following questions using the table and dependencies given below on the Emp_Proj table.

Emp_ID -> Name

Project_No -> Project_Name, Start_Date

Emp_Position -> Rate

- 1. Which normal form is the relation in?
- a. First Normal Form
- b. Second Normal Form
- c. Third Normal Form





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Consider the relation Inventory (PartNo, Warehouse, Location, Qty-on-hand, Weight, Colour) with the following functional dependences.

FD1 : PartNo -> Weight, Colour

FD2: (PartNo . Warehouse) -> Oty on hand

FD3: Warehouse -> Location

Which of the following statements is/are true?

Select one or more:

- a. The functional dependency FD1 violates 2NF
- b. The functional dependency FD3 violates 3NF
- E. The best normal form that inventory satisfies is 1NF
- d. The functional dependency FD2 violates 1NF



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You are given the following details as requirements for the database for a leading University.

in the University, there are several departments. Department have a name, phone extension, specific mailing address and Students that belong to the department. Students can belong to exactly one Department and a Department can have more than one or no Students. Students and faculty have names and unique identification numbers, with address, age, gender and other information. Student studies different Courses offered by University. Faculty teaches these Courses. In each semester one student can take more than one course and Faculty can teach more than one course. Each course can be taught by many faculty members or no one.

Construct the ER diagram for the university database and find the answers for the following questions.

- 1. What are the correct entities for the ER diagram?
- Department, Student, Course, Faculty
- Department, Student, Course
- University, student, course, Faculty
- University, Department, Faculty, Student
- 2. What is an incorrect Relationship for the ER diagram?



Online Examis

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Question 19

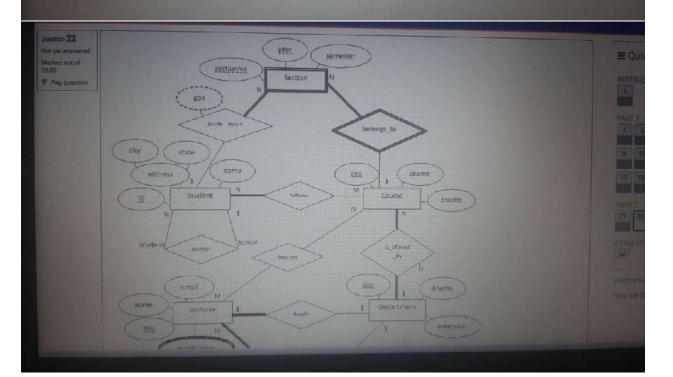
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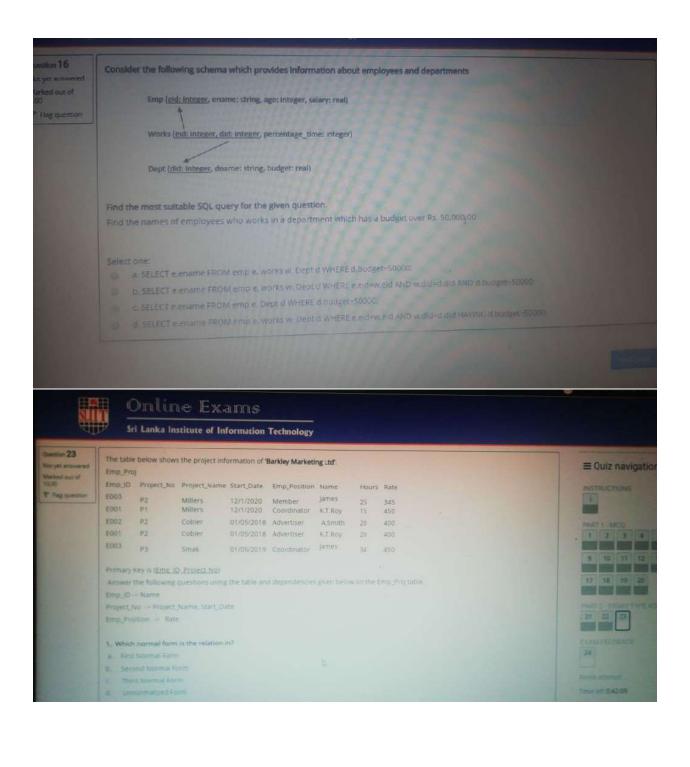
P. Flor question

Which of the following is an incorrect description with respect to components of an information system?

Select one:

- a. "Personnel" is who invest money for the system.
- b. "Stored Data" is facts stored in the system.
- c. "Hardware" is the equipment such as computers.
- d. "Software" is instructions for the computers.





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lag question

Which of the following statement is incorrect?

Select one:

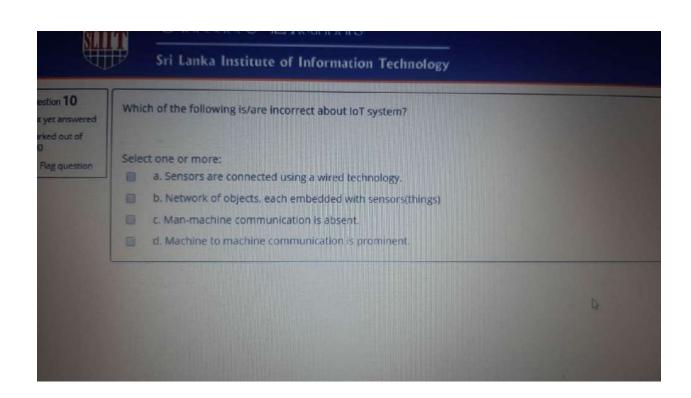
- a. End-user is not a computer professional.
- b. An information system user uses an information system in his or her personal or work life.
- C. An information system user is a computer-oriented person who gains some benefit from using an information system.
- d. An information system user is also known as an end-user.

each semester one student can take more than one course and Faculty can teach more than one course. Each course can be taught by many faculty members or no one.

Construct the ER diagram for the university database and find the answers for the following questions.

- 1. What are the correct entities for the ER diagram?
- a. Department, Student, Course, Faculty
- b. Department, Student, Course
- c. University, student, course, Faculty
- d. University, Department, Faculty, Student
- 2. What is an incorrect Relationship for the ER diagram?
- a. Student <belongs to> Department
- b. Student <studies> Course
- c Faculty < Teaches > Course
- d. Department <managed by> Faculty
- 3. Which of the following statements is false?
- Department and Student entities participate in a 1:M relationship
- Faculty and Course entities participate in a M:N relationship
- All relationships of the ER diagram are Binary Relationships
- Department and Course participates in a 1 M relationship

Select the correct answer name for the above questions from the following



taught by many faculty members or no one

Communative ER diagram for the university database and find the answers for the following questions.

- 1. What are the correct entities for the ER diagram?
- a: Department Student Course Faculty
- b. Department, Student Course
- University, student, course, Faculty
- University Department, Faculty, Student
- 2. What is an incorrect Relationship for the ER diagram?
- Student belongs to Department
- Student estudies- Course
- Faculty -Teaches- Course
- Department imanaged by Faculty.
- Which of the following statements is false?
- Department and Student entities participate in a 13M relationship
- Faculty and Course entotes participate in a MAN relationship.
- At realignification of the CR diagram are Equity Relationships
- Department and Course participates in a 1-M relationship

the sound answer pame for the above questions from the following.

