



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;

≡ Quiz navigation

INSTRUCTIONS

I

PART 1 - MCQ

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PART 2 - ESSAY TYPE

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EXAM FEEDBACK

24
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Finish attempt ...

Time left 1:58:59

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# Online Exams

Sri Lanka Institute of Information Technology

Which of the following is/are incorrect?

Select one or more:

- a. Increased efficiency and effectiveness of teams was enabled by groupware-office automation systems.
- 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.



### Question 3

Not yet answered

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3.00

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.

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.eid=w.eid 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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Finish

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## Online Exams

Sri Lanka Institute of Information Technology

Section 3

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Flag question

When considering the Three-Schema architecture of the DBMS, the ability to modify the Conceptual Schema without causing any change to the External Schema is known as:

Select one:

- a. Physical data independence
- b. Logical Data Independence
- c. External Data Independence
- d. None



# Online Exams

Sri Lanka Institute of Information Technology

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

Which of the following is correct regarding the process 'Normalization'

Select one:

- a. In second normal form relations no partial functional dependencies exist
- b. A relation is in second normal form, if there are transitive dependencies for non-prime attributes.
- c. A second Normal Form relation may be in first normal form.
- d. A relation is second normal form, if every field contains only atomic values that are, no lists or sets.

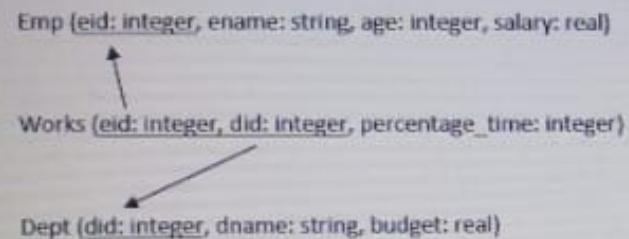
**Question 6**

Not yet answered

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Flag question

Consider the following schema which provides information about employees and departments



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 MAX(percentage_time);`
- c. `SELECT MAX(percentage_time) FROM Works;`
- d. `SELECT percentage_time FROM Works WHERE SUM(percentage_time);`

**≡ Quiz navigation****INSTRUCTIONS**

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**PART 1 - MCQ**

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**PART 2 - ESSAY TYPE AS MCQS**

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**EXAM FEEDBACK**

24

Finish attempt ...

Time left 1:43:08

The DBMS acts as an interface between the .....

Select one:

- A. Data and the Database
- B. Database application and SQL
- C. Software System and the Database
- D. The User and the Database application

5  
5 answered  
marked out of  
50

Flag question



Which statement is False regarding the Three Schema Architecture of the DBMS?

Select one:

- a. Physical schema describes actual physical storage information and indexes used
- b. Conceptual schema describes logical structure and constraints of the database
- c. Conceptual schema is dependent on the technology used
- d. External schema describes how users see the data

# Online Exams

Sri Lanka Institute of Information Technology

What is done by the "ORDER BY" clause in the following SQL statement?

```
SELECT eno, NIC, ename  
FROM Employee  
ORDER BY eno;
```

Select one:

- a. Final result will be sorted in descending order of the eno value
- b. Final result will be sorted by any column value
- c. Final result will be grouped
- d. Final result will be sorted in ascending order of the eno value



Company ABC uses IS and IT as a tool to improve efficiency and productivity of their salespeople. Which of the following is most suitable as a strategic objective of the ABC company?

Select one:

- a. Improved decision making
- b. Operational excellence
- c. Customer and supplier intimacy
- d. New products, services, and business models



# Online Exams

Sri Lanka Institute of Information Technology

Super Aero Engineering uses CAD and CAM systems to construct new aircraft prototypes.

Which of the following is most suitable as a strategic objective of the Super Aero Engineering company?

Select one:

- a. Operational excellence
- b. Improved decision making
- c. New products, services, and business models
- d. Customer and supplier intimacy

[Next page](#)



# Online Exams

## Sri Lanka Institute of Information Technology

Question 7

Not yet answered

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Flag question

Which of the following is not a unique information system?

Select one:

- a. Apparel cutting analyzer
- b. clinical management system
- c. Attendance management system
- d. Examination management system

# Online Exams

## Sri Lanka Institute of Information Technology

Ensuring the task is done by right person, at the right time in the right order is the expectation of.



Select one:

- a. Workflow management system
- b. Supply chain management system
- c. Process control system
- d. Enterprise Resource Planning system

Online Exams

SLIIT Sri Lanka Institute of Information Technology

it19978352 Jayalath.J.S.D.S.D.K it19978352

Question 8  
Not yet answered  
Marked out of 3.00  
Flag question

Consider the following schema which provides information about student results  
**Results (StudentNo, SubjectNo, Marks)**

Find the most suitable SQL query for the given question.  
Display the average marks for each subject

Select one:

- a. SELECT AVG(Marks) FROM Results GROUP BY StudentNo;
- b. SELECT MAX (Marks) FROM Results GROUP BY StudentNo;
- c. SELECT AVG(Marks) FROM Results ;
- d. SELECT AVG(Marks) FROM Results GROUP BY Marks;

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Quiz navigation

INSTRUCTIONS

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PART 2 - ESSAY TYPE AS MCQS

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EXAM FEEDBACK

24

Finish attempt

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SLIIT

UNILIVE EXAMINATIONS

Sri Lanka Institute of Information Technology

Components of a Computer based Information System does not include,

Question 8 Not yet answered Marked out of 3.00

Flag question

Select one:

- a. Stored data
- b. Information
- c. Hardware
- d. Software

A bank provides an online banking system to their customers with the hope of delivering better performance and responding to its customers & suppliers in real time. So that they plan to improve their customer base. Which of the following strategic objective that they would achieve?



Select one:

- a. Improved decision making
- b. New products, services, and business models
- c. Operational excellence
- d. Competitive advantage

Next page

# Online Exams

Sri Lanka Institute of Information Technology

What is the correct SQL query which can find the highest eno in the employee table?

eno	NIC	ename	address	dnumber
100	901250087V	Smith,John B	731 Fondren, H...	5
101	895290452V	Wrong, Frankli...	638 Voss, Houst...	5
102	923859070V	Zelaya, Alicia J.	33321 Castle, S...	4
104	904850045V	Narayan, Reme...	975 Fire Oak, H...	5
105	889950600V	English, Joyce A.	5631 Rice, Hous...	1
106	915850123V	Jabbar, Ahama...	980 Dallas, Hou...	1

Select one:

- a. Select MAX (eno) from Employee
- b. Select SUM (eno) from Employee
- c. Select eno from Employee ORDER BY eno
- d. Select MIN (eno) from Employee

Select the correct answer name for the above questions from below.

1. What is the primary key of 'Section' relation?

c



5. How many foreign keys are there in the *Course* relation?

d



3. Select the correct statement.

c



4. Select the table(s) which has *dno* as a foreign key.

a



2. Select the correct answer, when *Lecturer* entity is mapped to relational model;

d





Which statement is False regarding the Three Schema Architecture of the DBMS?

Select one:

- a. Conceptual schema is dependent on the technology used
- b. Physical schema describes actual physical storage information and indexes used
- c. External schema describes how users see the data
- d. Conceptual schema describes logical structure and constraints of the database





# Online Exams

Sri Lanka Institute of Information Technology

Which one of the following statements about normal forms is TRUE ?

Select one:

- a. Every relation in 3NF is also in BCNF.
- b. A relation is in first normal form if every field contains only atomic values.
- c. If every non-key attribute is functionally depending on primary key, then the relation will be in second normal form.
- d. No relation can be in both BCNF and 3NF.



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# Online Exams

Sri Lanka Institute of Information Technology

it19978352 Jayalath.J.S.D.S.D.K it19978352

Question 11

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Flag question

Consider the following schema which provides information about items.

**Item (item\_no, supplier\_no, item\_name, quantity\_in\_hand, reorder\_level)**

Find the most suitable SQL query for the given question.

Find the total number of items supplied by each supplier. Display the item number and supplier number.

Select one:

- a. Select SUM ( item\_no ) as "Total no of items", supplier\_no From Item Group by supplier\_no, item\_no
- b. Select SUM ( item\_no ) as "Total no of items", supplier\_no From Item Group by supplier\_no
- c. Select COUNT( item\_no ) as "Total no of items", supplier\_no From Item Group by supplier\_no, item\_no
- d. Select COUNT( item\_no ) as "Total no of items", supplier\_no From Item Group by supplier\_no

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## Quiz navigation

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### PART 2 - ESSAY TYPE AS MCQS

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### EXAM FEEDBACK

24

Finish attempt ...

6:13 PM  
6/4/2020



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Referential integrity constraint indicates that:

Select one:

- a. The value of a foreign key cannot appear in a primary key of the referenced table.
- b. The value of a primary key cannot appear in a foreign key of the referenced table.
- c. The value of a foreign key must appear in the primary key field of the referenced table.
- d. The value of a primary key must appear in the foreign key of the referenced table.

Next p



Online Exams

Sri Lanka Institute of Information Technology

SLIIT

Question 10  
Not yet answered  
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Flag question

Which one of the following statements about normal forms is TRUE ?

Select one:

- a. If every non-key attribute is functionally depending on primary key, then the relation will be in second normal form
- b. A relation is in first normal form if every field contains only atomic values.
- c. No relation can be in both BCNF and 3NF.
- d. Every relation in 3NF is also in BCNF.

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# Online Exams

Sri Lanka Institute of Information Technology

14

Answered

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question

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

FD1 : PartNo  $\rightarrow$  Weight, Colour

FD2 : (PartNo , Warehouse)  $\rightarrow$  Qty\_on\_hand

FD3: Warehouse  $\rightarrow$  Location

Which of the following statements is/are true?

Select one or more:



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

Next >

**Question 16**

Not yet answered

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3.00

 Flag question

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

**Question 20**

Not yet answered

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3.00

Flag question

What is the correct SQL query to get the last **eno** (106) from the employee table given below?

**Employee**

eno	NIC	ename	address	dnumber
100	901250087V	Smith, John B	731 Fondren, H...	5
101	895290452V	Wrong, Frankli...	638 Voss, Houst...	5
102	923859070V	Zelaya, Alicia J.	33321 Castle, S...	4
104	904850045V	Narayan, Reme...	975 Fire Oak, H...	5
105	889950600V	English, Joyce A.	5631 Rice, Hous...	1
106	915850123V	Jabbar, Ahama...	980 Dallas, Hou...	1

Select one:

- a.  
select eno,MAX(eno) from Employee group by eno order by eno
- b.  
select top 1 eno from Employee order by eno desc
- c.  
select top 1 eno from Employee order by eno asc
- d. select eno,MAX(eno) from Employee group by eno

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PART 2

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Consider the following schema which provides information about student results

**Results (StudentNo, SubjectNo, Marks)**

Find the most suitable SQL query for the given question.

Display the average mark for 'IT1090' subject

Select one:

- a. SELECT AVG(Marks) FROM Results GROUP BY SubjectNo ='IT1090';
- b. SELECT AVG(Marks) FROM Results WHERE SubjectNo ='IT1090';
- c. SELECT AVG(Marks) FROM Results ORDER BY SubjectNo ='IT1090';
- d. SELECT SUM(Marks) FROM Results WHERE SubjectNo ='IT1090';

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12 Answered

## Online Exams

Sri Lanka Institute of Information Technology

which of the following is not an advantage of a Database Management Systems,

Select one:

- a. Reduced Data Redundancy
- b. Concurrent Access
- c. High Security
- d. High Initial Investment

4



## Online Exams

Sri Lanka Institute of Information Technology

Question 14

Not yet answered

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Flag question

Which of the following is/are incorrect about IoT system?

Select one or more:

- a. Man-machine communication is absent.
- b. Machine to machine communication is prominent.
- c. Network of objects, each embedded with sensors(things)
- d. Sensors are connected using a wired technology.

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PART 2 - ESSAY TYPE AS MCQS

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EXAM FEEDBACK

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# Online Examination

## Sri Lanka Institute of Information Technology

Question 14  
Not answered  
1 out of  
100  
Lesson

In 2NF

Select one:

- a. No multivalued attributes exist.
- b. No partial multivalued dependencies exist.
- c. No functional dependencies exist.
- d. No partial dependencies exist



# Online Exams

Sri Lanka Institute of Information Technology

Question 15

Not yet answered

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3.00

Flag question

Which statement is False regarding the Three Schema Architecture of the DBMS?

Select One:

- a. External schema describes how users see the data
- b. Physical schema describes actual physical storage information and indexes used
- c. Conceptual schema is dependent on the technology used
- d. Conceptual schema describes logical structure and constraints of the database



Question 16

Not yet answered

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Flag question

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

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PART 1

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PART 2 ES

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Time left 0:00:00

Information systems contribute in many ways to the business except.

Select one:

- a. Balance the workload among employees.
- b. Support the problem solving and decision-making needs of various people.
- c. Support and improve day-to-day operations in an organization.
- d. Collect, process, store, analyze, and disseminate information for a specific purpose.

Question 19

Not yet answered

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 Flag question

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 SUM(salary) FROM Emp;
- b. SELECT MAX(salary) FROM Emp;
- c. SELECT salary FROM Emp WHERE TOTAL(salary);
- d. SELECT salary FROM Emp WHERE MAX(salary);



Question 17

Not yet answered

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3.00

Flag question

What is the correct SQL statement to update Employee name 'Jabbar, Ahamad V' into 'Brian Eno'n the following Employee table?

eno	NIC	ename	address	dnumber
100	901250087V	Smith, John B	731 Fondren, H...	5
101	895290452V	Wrong, Frankli...	638 Voss, Houst...	5
102	923859070V	Zelaya, Alicia J.	33321 Castle S...	4
104	904850045V	Narayan, Reme...	975 Fire Oak, H...	5
105	889950600V	English, Joyce A.	5631 Rice, Hous...	1
106	915850123V	Jabbar, Ahama...	980 Dallas, Hou...	1

Select one:

- a. Update Employee SET ename = 'Brian Eno' where eno == '106'
- b. Update Employee SET ename = 'Brian Eno' where eno=106
- c. Update Employee SET ename = 'Brian Eno' where NIC= '915850123'
- d. Update Employee SET ename = 'Brian Eno' where eno IN 106

[Next page](#)

The table below shows details of "Sanhinda" bank.

Account\_Info

Account_No	Customer_NIC	Account_type	Balance	Customer_Name	Customer_address	Interest_rate
A001	881234567V	Fixed Deposit	1200,000	A.L. Gunasiri	Kaduwela	12%
A002	781245639V	Savings	25,800	J.W. Perera	Malabe	6%
A003	781245639V	Fixed Deposit	50,000	J.W. Perera	Moratuwa	12%
A001	905001002V	Fixed Deposit	1200,000	D. Wijekoon	Colombo 3	12%

Account\_No -> Balance



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flag question

Which of the following do you need to consider when you define a table in SQL?

Select one or more:

- a. Multivalued attributes
- b. Primary Key of table
- c. Data Types of attributes
- d. Default values for attributes





## Question 20

Not yet answered

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3.00

Flag question

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 MAX(salary) FROM Emp;
- b. SELECT salary FROM Emp WHERE MAX(salary);
- c. SELECT SUM(salary) FROM Emp;
- d. SELECT salary FROM Emp WHERE TOTAL(salary);



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≡ Quiz

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PART 1 - M

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PART 2 - E

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EXAM FEE



24

Finish attempt



## Question 20

Not yet answered

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Flag question

Microsoft outlook is a



Select one:

- a. Inter-organizational Information systems
- b. Organizational Information Systems
- c. Workgroup Information Systems
- d. Personal Information Systems

The table below shows details of “Sanhind” bank.

#### Account\_Info

Account_No	Customer_NIC	Account_type	Balance	Customer_Name	Customer_address	Interest_rate
A001	881234567V	Fixed Deposit	1200,000	A.L. Gunasiri	Kaduwela	12%
A002	781245639V	Savings	25,800	J.W. Perera	Malabe	6%
A003	781245639V	Fixed Deposit	50,000	J.W. Perera	Moratuwa	12%
A001	905001002V	Fixed Deposit	1200,000	D. Wijekoon	Colombo 3	12%

Account\_No -> Balance

Marked out of  
15.00  
 Flag question

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 its 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-Insurance company database and find the answers for the following questions.

1. What are the correct entities for the ER diagram?
  - a. Owner, Car
  - b. Owner, Car, Accident
  - c. Owner, Car, InsuranceCompany
  - d. InsuranceCompany, Car, Accident
  
2. What is correct about the Relationships for the ER diagram?
  - a. Owner:Car is 1:M
  - b. Owner:Car is M:N
  - c. Owner:Car is 1:1
  - d. Car:Accident is M:N
  
3. Which of the following statements is false?
  - a. All relationships are Binary relationships
  - b. Owner and Car participates in a 1:M relationship
  - c. There is a Recursive relationship
  - d. Owner <owns> Car, Car <participated in> Accident are the only relationships

INSTRUCTIONS

1

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PART 2 - ESSAY TYPE AS MCQS

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EXAM FEEDBACK

24

Finish attempt...

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6:51 PM

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?

- 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?

- a. Department and Student entities participate in a 1:M relationship
- b. Faculty and Course entities participate in a M:N relationship
- c. All relationships of the ER diagram are binary Relationships
- d. Department and Course participates in a 1:M relationship



**Question 21**

Not yet answered

Marked out of  
15.00

Flag question

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?
  - 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?
  - a. Department and Student entities participate in a 1:M relationship
  - b. Faculty and Course entities participate in a M:N relationship
  - c. All relationships of the ER diagram are Binary Relationships
  - d. Department and Course participates in a 1:M relationship

**≡ Quiz navigation****INSTRUCTIONS**

1

**PART 1 - MCQ**

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

**PART 2 - ESSAY TYPE AS**

21	22	23
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**EXAM FEEDBACK**

24

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## Online Exams

Sri Lanka Institute of Information Technology

**Question 22**

Not yet answered

Marked out of  
10.00

Flag question

Consider the following relation scheme and the set of functional dependencies for Vendor order relation.

Primary key is (vendor no, order no)

vendor order (vendor no, order no, vendor name, quantity , price/unit)

vendor no → vendor name

order no → quantity, price/unit

quantity → price/unit

1. Which normal form is the relation in?

- a. First Normal Form
- b. Second Normal Form
- c. Third Normal Form
- d. Unnormalized Form

2. What is the 2<sup>nd</sup> Normal Form relations for Vendor order relation.



## Online Exams

Sri Lanka Institute of Information Technology

it19978352 Jayalath.J.S.D.S.D.K it19978352 ~

### Question 22

Not yet answered  
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10.00

Flag question

Consider the following relation scheme and the set of functional dependencies for relation R. Primary key is (A,B)

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

$F = \{AB \rightarrow C, B \rightarrow D, D \rightarrow E\}$

1. Which normal form is the relation in?

- a. First Normal Form.
- b. Second Normal Form
- c. Third Normal Form
- d. Unnormalized Form

2. The corresponding 2 NF relations are

- a.  $R(A, B, C, D, E)$
- b.  $R1(B, D)$   
 $R2(D, E)$   
 $R3(A, B, C)$
- c.  $R1(A, B, C, D)$   
 $R2(B, D)$   
 $R3(D, E)$
- d.  $R1(B, D, E)$

### Quiz navigation

#### INSTRUCTIONS

1

#### PART 1 - MCQ

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8	9	10	11	12	13	14
15	16	17	18	19	20	

#### PART 2 - ESSAY TYPE AS MCQS

21	22	23

#### EXAM FEEDBACK

24

Finish attempt



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**Question 22**

Not yet answered

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10.00

Flag question

Consider the following relation scheme and the set of functional dependencies for relation R. Primary key is (A,B)  
 $R(\underline{A}, \underline{B}, C, D, E)$

$$F = \{ AB \rightarrow C, B \rightarrow D, D \rightarrow E \}$$

**1. Which normal form is the relation in?**

- a. First Normal Form.
- b. Second Normal Form
- c. Third Normal Form
- d. Unnormalized Form

**2. The corresponding 2 NF relations are**

- a.  $R(A, B, C, D, E)$
- b.  $R1(\underline{B}, D)$   
 $R2(\underline{D}, E)$   
 $R3(\underline{A}, \underline{B}, C)$
- c.  $R1(\underline{A}, \underline{B}, C, D)$   
 $R2(\underline{B}, D)$   
 $R3(\underline{D}, E)$
- d.  $R1(\underline{B}, D, E)$



C. Third Normal Form

d. Unnormalized Form

2. What is the 2<sup>nd</sup> Normal Form relations for Vendor order relation.

- a. vendor (vendor no, vendor name)  
quantity (quantity, price/unit)  
order (order no, quantity)
- b. vendor (vendor no, vendor name)  
order (order no, quantity, price/unit)
- c. vendor (vendor no, vendor name)  
order (order no, quantity, price/unit)  
vendor order (vendor no, order no)
- d. vendor (vendor no, vendor name, quantity, price/unit)  
vendor order (order no, vendor no)

3. What are the 3<sup>rd</sup> Normal Form relations for Vendor order relation.

- a. vendor (vendor no, vendor name)  
order (order no, quantity, price/unit)  
price (quantity, price/unit)  
vendor order (vendor no, order no)

Q. UNNORMALIZED FORM

2. The corresponding 2 NF relations are

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

3. The corresponding 3 NF relations are

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

8	9	10	11	12	13	14
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PART 2 - ESSAY TYPE AS MCQS

- 21
- 22
- 23

EXAM FEEDBACK

- 24

Finish attempt...

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The table below shows details of "Sanhinda" bank.

Account\_Info

Account_No	Customer_NIC	Account_type	Balance	Customer_Name	Customer_address	Interest_rate
A001	881234567V	Fixed Deposit	1200,000	A.L. Gunasiri	Kaduwela	12%
A002	781245639V	Savings	25,800	J.W. Perera	Malabe	6%
A003	781245639V	Fixed Deposit	50,000	J.W. Perera	Moratuwa	12%
A001	905001002V	Fixed Deposit	1200,000	D. Wijekoon	Colombo 3	12%

Account\_No → Balance

Account-type → Interest\_rate

Customer\_NIC → Customer\_Name, Customer\_address

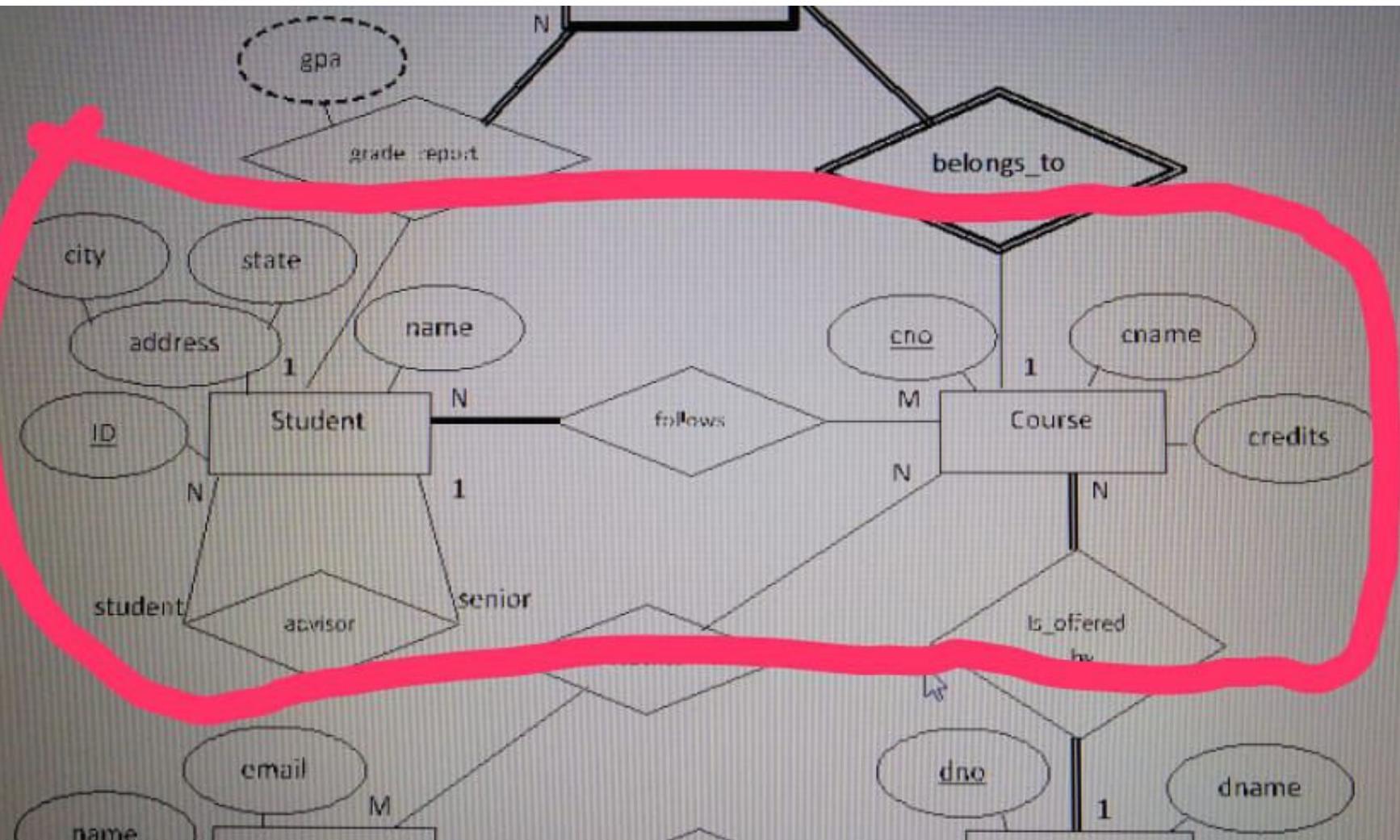
The diagram above shows the dependencies and attributes of the relation "Account\_Info". Primary key is (AccountNo, Customer\_NIC).

Answer the following question using the table and dependencies given above.

1. Which normal form is the relation in?

- a. First Normal Form
- b. Second Normal Form
- c. Third Normal Form
- d. Unnormalized Form

2. What are the 2<sup>nd</sup> Normal Form relations for Account\_Info table.



**Convert the above ER-diagram to the Relational Model. Identify the relations, the references; and find the answers for the following questions.**



1. What is/ are the foreign key(s) in the table 'Follows'?
  - a. studentID
  - b. courseNo
  - c. studentID and courseNo
  - d. seniorID
  
2. Select the correct relation in the relational model
  - a. Department(dno, dname, extension)

You are given the following details as requirements for a hospital with a set of patients and a set of medical doctors.

A doctor has a doctor SS number, name, contact number and a specialization. Doctors are assigned to treat the patients. A doctor is assigned with many patients, but a given patient is assigned only one doctor. A patient has a patient SS number, name, DOB and a contact number. They also need to keep track of the date the patient checked-in and checked-out. If the same patient comes for treatment only the last such check-in details need to be stored. Also, they need to keep a record of the various tests conducted for the patient. They need to store the unique test-ID, test name, date and time, result of the test and the name of the doctor who conducted the test. Only one doctor is assigned to conduct the test. And a patient may have several tests during their stay.

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

1. What are the correct entities for the ER diagram?

- a. Hospital, Patient, Test, Doctor
- b. Patient, Doctor
- c. Hospital, Patient, Test, Doctor
- d. Patient, Test, Doctor

2. What is incorrect about the Relationships for the ER diagram?

- c. Third Normal Form
- d. Unnormalized Form

2. What are the 2<sup>nd</sup> Normal Form relations for Account\_Info table.

- a. R1( Account\_No, Customer\_NIC, Balance, Customer\_Name, Customer\_address )  
R2 ( Account\_No, Customer\_NIC, Account\_Type, Interest\_rate)
- b. R1( Account\_No, Balance )  
R2 ( Customer\_NIC, Customer\_Name, Customer\_address)  
R3 ( Account\_No, Customer\_NIC, Account\_Type, Interest\_rate) 
- c. R1( Account\_No, Balance )  
R2 ( Customer\_NIC, Customer\_Name, Customer\_address)  
R3( Account\_Type, Interest\_rate)  
R4( Account\_No, Customer\_NIC, Account\_Type)
- d. R1( Account\_Type, Interest\_rate)  
R2 ( Account\_No, Customer\_NIC, Account\_Type, Balance, Customer\_Name, Customer\_address, Interest\_rate)

What are the 3<sup>rd</sup> Normal Form relations for Account\_Info table?

b. SECOND NORMAL FORM

- c. Third Normal Form
- d. Unnormalized Form

2. What are the 2<sup>nd</sup> Normal Form relations for Account\_Info table.

a. R1( Account\_No, Customer\_NIC, Balance, Customer\_Name, Customer\_address )

R2 ( Account\_No, Customer\_NIC, Account\_Type, Interest\_rate)

b. R1( Account\_No, Balance )

R2 ( Customer\_NIC, Customer\_Name, Customer\_address )

R3 ( Account\_No, Customer\_NIC, Account\_Type, Interest\_rate )



c. R1( Account\_No, Balance )

R2 ( Customer\_NIC, Customer\_Name, Customer\_address )

R3( Account\_Type, Interest\_rate )

R4 ( Account\_No, Customer\_NIC, Account\_Type )

d. R1( Account\_Type, Interest\_rate )

R2 ( Account\_No, Customer\_NIC, Account\_Type, Balance, Customer\_Name, Customer\_address, Interest\_rate )



3. What are the 3<sup>rd</sup> Normal Form relations for Account\_Info table.

- d. R1(Account\_Type, Interest\_rate)  
R2 (Account\_No, Customer\_NIC, Account\_Type, Balance, Customer\_Name, Customer\_address, Interest\_rate,)

3. What are the 3<sup>rd</sup> Normal Form relations for Account\_Info table.

- a. R1(Account\_No, Balance)  
R2 (Customer\_NIC, Customer\_Name, Customer\_address)  
R3(Account\_Type, Interest\_rate)  
R4 (Account\_No, Customer\_NIC, Account\_Type)
- b. R1(Account\_No, Balance)  
R2 (Customer\_NIC, Customer\_Name, Customer\_address)  
R3 (Account\_No, Customer\_NIC, Account\_Type, Interest\_rate) 
- c. R1(Account\_Type, Interest\_rate)  
R2(Account\_No, Customer\_NIC, Account\_Type, Balance, Customer\_Name, Customer\_address, Interest\_rate)
- d. R1(Account\_No, Customer\_NIC, Balance, Customer\_Name, Customer\_address)  
R2 (Account\_No, Customer\_NIC, Account\_Type, Interest\_rate)

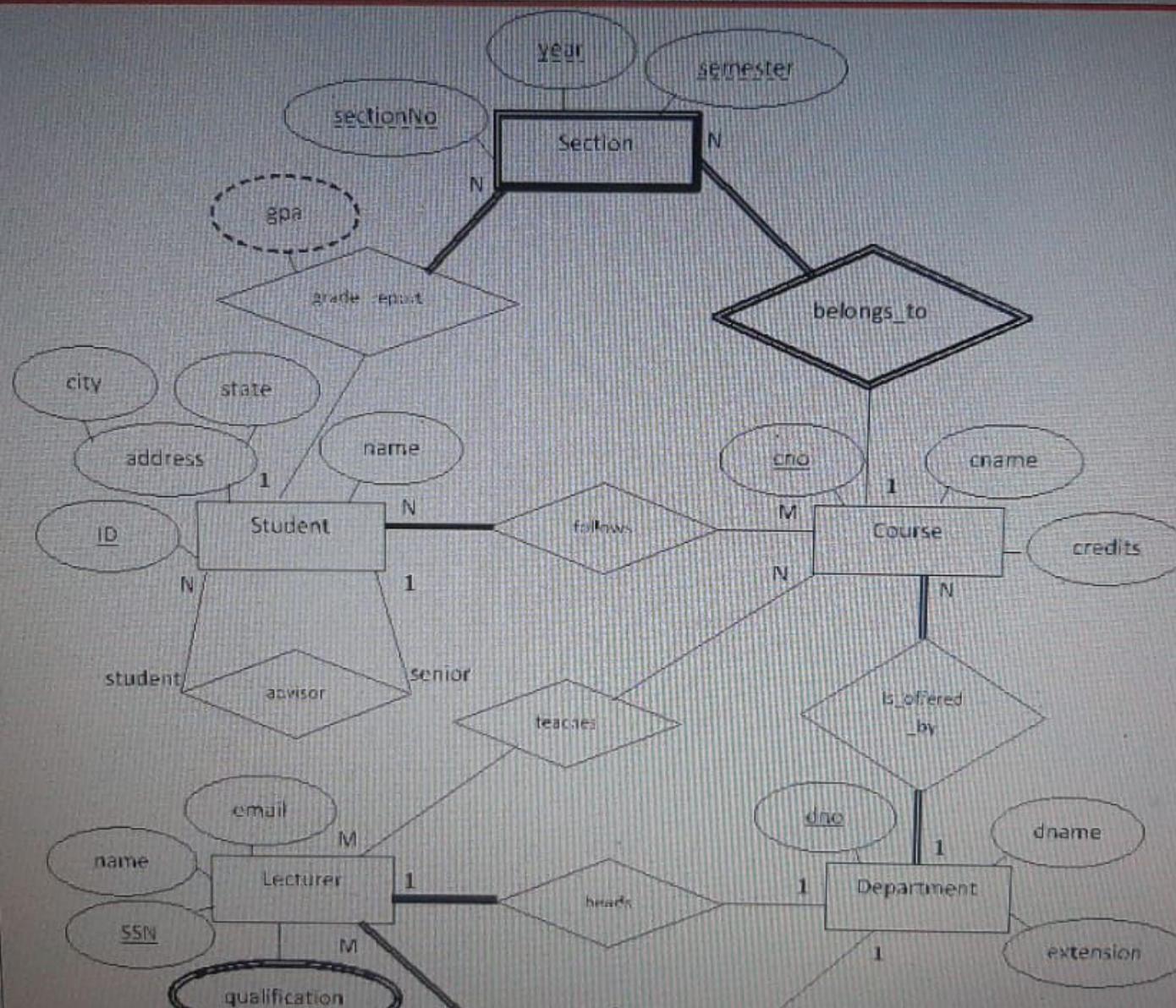
Select the correct answer name for the above questions from the following.

2. What are the 2<sup>nd</sup> Normal Form relations for Account\_Info table. Choose

3. What are the 3<sup>rd</sup> Normal Form relations for Account\_Info table. Choose

**Question 23**

Not yet answered

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15.00 Flag question

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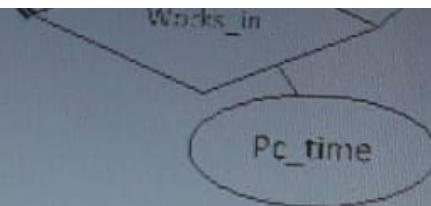
EXAM

24

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Convert the above ER-diagram to the Relational Model. Identify the relations, their primary-key and the foreign-key references; and find the answers for the following questions.

1. Which relation has the descriptive attribute 'gpa'?

- a. Section
- b. Student
- c. Grade\_report
- d. None of the mentioned

2. Select the correct relation in the relational model.

- a. Section (cno, secno, semester, year, studentID)
- b. Section (secno, semester, year, studentID)
- c. Section (cno, secno, semester, year, studentID)
- d. Section (cno, secno, semester, year)

3. Select the false statement

- a. Section table has 2 foreign keys

3. Select the false statement

- a. Section table has 2 foreign keys
- b. Degree of the Lecturer table is 5
- c. Primary key SSN in the Lecturer table is referred by 3 tables
- d. Primary key studentID in the Student table is referred by 2 tables

4. Select the table(s) which has studentID as a foreign key

- a. Section
- b. Follows
- c. Section, Follows
- d. Student, Section, Follows

5. How many tables have composite primary keys?

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

Select the correct answer name for the above questions from below.

**Question 23**

Not yet answered

Marked out of  
15.00

Flag question

You are given the following details as requirements for a hospital with a set of patients and a set of medical doctors.

A doctor has a doctor SS number, name, contact number and a specialization. Doctors are assigned to treat the patients. A doctor is assigned with many patients, but a given patient is assigned only one doctor. A patient has a patient SS number, name, DOB and a contact number. They also need to keep track of the date the patient checked-in and checked-out. If the same patient comes for treatment only the last such check-in details need to be stored. Also, they need to keep a record of the various tests conducted for the patient. They need to store the unique test-ID, test name, date and time, result of the test and the name of the doctor who conducted the test. Only one doctor is assigned to conduct the test. And a patient may have several tests during their stay.

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

1. What are the correct entities for the ER diagram?

- a. Hospital, Patient, Test, Doctor
- b. Patient, Doctor
- c. Hospital, Patient, Test, Doctor
- d. Patient, Test, Doctor

2. What is incorrect about the Relationships for the ER diagram?

- c. Hospital, Patient, Test, Doctor
- d. Patient, Test, Doctor

2. What is incorrect about the Relationships for the ER diagram?

- a. doctor <assigned> patient
- b. Hospital <accommodates> Patient
- c. Patient <recommended> Test
- d. Doctor <performs> Test

3. Which of the following statements is false?

- a. In Patient <assigned> Doctor relationship Patient side has Total participation
- b. Test is a multivalued attribute
- c. All relationships are Binary relationships
- d. All relationships have 1:M Cardinality ratio

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

3. Which of the following statements is false?

Choose... ▾

1. What are the correct entities for the ER diagram?

Choose... ▾

2. What is incorrect about the Relationships for the ER diagram?

Choose... ▾

... for the NRE Database and fill the answers for the following questions.

1. What are the correct entities for the ER diagram?

- a. Hospital, Patient, Test, Doctor
- b. Patient, Doctor
- c. Hospital, Patient, Test, Doctor
- d. Patient, Test, Doctor



2. What is incorrect about the Relationships for the ER diagram?

- a. doctor <assigned> patient
- b. Hospital <accommodates> Patient
- c. Patient <recommended> Test
- d. Doctor <performs> Test

C

3. Which of the following statements is false?

- a. In Patient <assigned> Doctor relationship Patient side has Total participation
- b. Test is a multivalued attribute
- c. All relationships are Binary relationships
- d. All relationships have 1:M Cardinality ratio

d

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