Moodle

NetExann

Sri Lanka Institute of Information Technology

Question 1

Not yet answered

Marked out of 1.0

Flag question

Which is(are) **NOT** a characteristic(s) of the database approach?

Select one or more:

- [x] a. Support of a single view of the data
- [ ] b. Self-describing nature of a database system
- [ ] c. Data Collection
- [ ] d. Insulation between programs and data
- [x] e. Increasing redundancy of data

6 th lecture

Manages Information. ...
Easy Operation Implementation. ...
Multiple Views of Database. ...
Data For Specific Purpose. ...
It has Users of Specific Interest. ...
Self Describing nature. ...
Logical Relationship Between Records and Data. ...
Shelter Between Program and Data.

Quiz navigati

Next page

ERROR REPORTING

Moodle

NetExam

Sri Lanka Institute of Information Technology

Question 2

Not yet answered

Marked out of 1.0

Flag 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
- [x] b. Being able to access data using programs written in different programming languages.
- [ ] c. Being able to improve the performance of database without effecting the data
- [ ] d. Being able to define which users are able to access data
- [x] e. Being able to hide from users where the actual data are stored

Next page

Quiz navigation

Time left

1 2 3 4 5

8 9 10 11 12

15 16 17 18 19

22

ERROR REPORTING

23

NetExamn

Sri Lanka Institute of Information Technology

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

Select one or more:

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

NetExamn

Sri Lanka Institute of Information Technology

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
- [x] e. All of the above

NetExam

Sri Lanka Institute of Information Technology

Which of the following is/are **TRUE** about databases and database management systems?

Select one or more:

- [ ] a. Databases are used to only store complex information
- [ ] b. All databases are computerized
- [x] c. Defining a database involves specifying the data types, structures and constraints on data
- [x] d. DBMS is a special purpose software that is capable of structuring, storing and programming data
- [x] e. Database definitions are stored in a database catalog

Sri Lanka Institute of Information Technology

ion 1
et answered
ed out of 1.0
lag question

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

Next page

Quiz navig

Finish attempt ...

Time left 0:56:26

1 2 3
8 9 10
15 16 17
22

ERROR REPORTING

23

NetExam

Sri Lanka Institute of Information Technology

Which of the following is true related to ISA relationships?

Select one or more:

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

NetExam

Sri Lanka Institute of Information Technology

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

Which of the following statements are true related to constraints?

Select one or more:

overlap

- [ ] a. A bowler and batsman(assume wicket keeper is also a batsman) which are sub types of a cricketer type is total and disjoint
- [ ] b. If a subtype participates in a relationship that is the same as the other subtypes that relationship could be added to the super type
- [ ] c. When an entity belongs to only one sub type in the hierarchy the relationship 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

Sri Lanka Institute of Information Technology

estion 1

t yet answered

arked out of 1.0

Flag question

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

Select one or more:

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

NetExam

Sri Lanka Institute of Information Technology

wered
of 1.0
estion

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

Next page

swered
t of 1.0
estion

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

Select one or more:

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

NetExam

Sri Lanka Institute of Information Technology

Which of the following situations would you use a database to store data?

Select one or more:

- [x] a. To store information about rooms and customers of a hotel management system
- [x] b. To store student name list of your class which is used by multiple lecturers
- [x] c. To store information of vehicles owned by a vehicle renting company
- [ ] d. To store your 'to do' list
- [ ] e. To store addresses of relatives and friends

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

Select one or more:

- [ ] a. Being able to access data using programs written in different programming languages.
- [x] 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
- [x] e. Being able to add columns to a table without effecting user queries

Data independence – application programs are independent of the way the data is structured and stored

ed
1.0
on

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
- [x] b. When an entity belongs to only one sub type in the hierarchy the relationship is total and disjoint.
- [x] c. 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.
- [ ] d. A bowler and batsman(assume wicket keeper is also a batsman) which are sub types of a cricketer type is total and disjoint

Next page

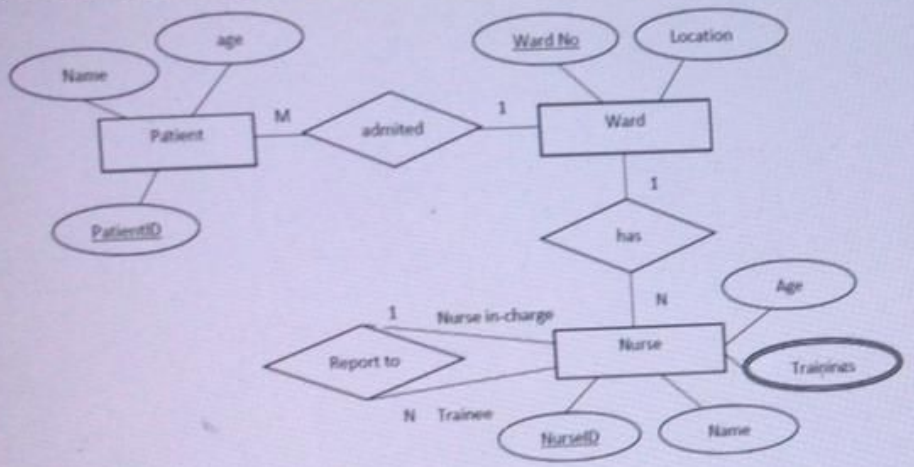
estion 6

t yet answered

arked out of 1.0

Flag question

Consider the EER diagram below :



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

Select one or more:

- [x] a. No two wards could be at the same location
- [x] b. There can be wards with no patients
- [ ] c. A trainee nurse may report to multiple nurses
- [x] d. A nurse only works in only one ward
- [ ] e. All nurses should have at least one training

Next page

Quiz n

Finish attem

Time left 0:4

1 2

9 10

17 18

ERROR REP

23

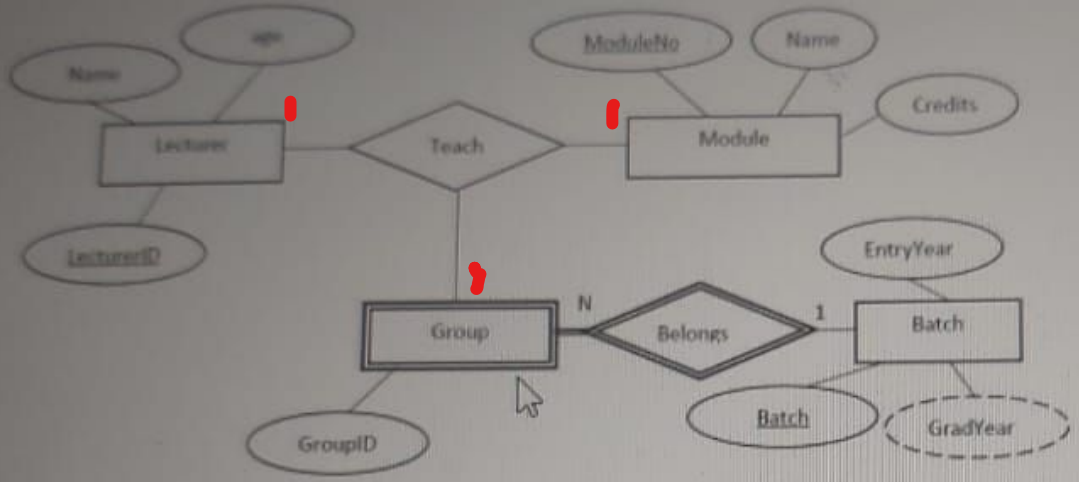
stion 6

yet answered

ked out of 1.0

lag question

Consider the EER diagram given below:

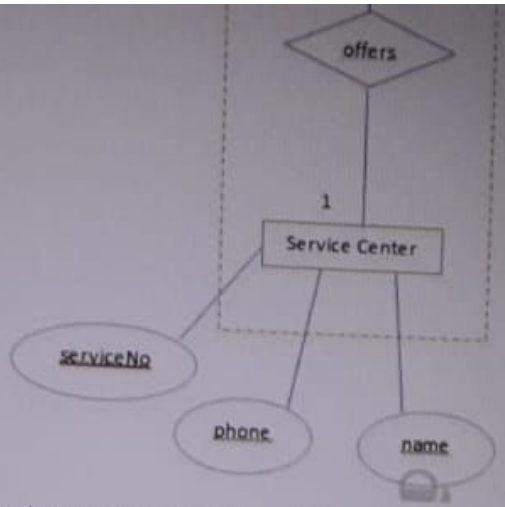


Which of the following is true related to the above diagram?

Select one or more:

- [ ] a. There can be many batches with same value for batch
- [ ] b. Multiple lecturers can teach same module to the same group
- [x] c. A group cannot exist without a batch
- [x] d. There can be a lecturer who teach one module to more than one group
- [x] e. There can be many groups with the same group ID in the system as it is not a primary key

page 22



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

Select one:

- a. Service Center (serviceNo, phone, name)
  Service Type (sNumber, serviceNo, bookingID, type, cost)
  Booking (bookingID, dateTime, location)
- b. Service Center (serviceNo, phone, name, bookingID)
  Service Type (sNumber, type, cost, serviceNo)
  Booking (bookingID, dateTime, location)
- c. Service Center (serviceNo, phone, name)
  Service Type (sNumber, type, cost, bookingID)
  Booking (bookingID, dateTime, location, serviceNo)
- d. Service Center (serviceNo, phone, name, serviceNo, bookingID)
  Service Type (sNumber, type, cost)
  Booking (bookingID, dateTime, location)
- e. Service Center (serviceNo, phone, name)
  Service Type (sNumber, type, cost, serviceNo, bookingID)
  Booking (bookingID, dateTime, location)

Moodle

NetExamn

Sri Lanka Institute of Information Technology

Question 9

Not yet answered

Marked out of 1.0

Flag question

Select the correct answer(s) about the 'Section' relation in the final relational model.

Select one or more:

- a. Section relation has a composite primary key
- b. Bookid is a foreign key in the Section relation
- c. The degree of the Section relation is 2.
- d. secno is the primary key of the Section relation
- e. The degree of the Section relation is 3.

Next page

Quiz navigation

Time left

1 8 15 22

ERROR REPORTING

23

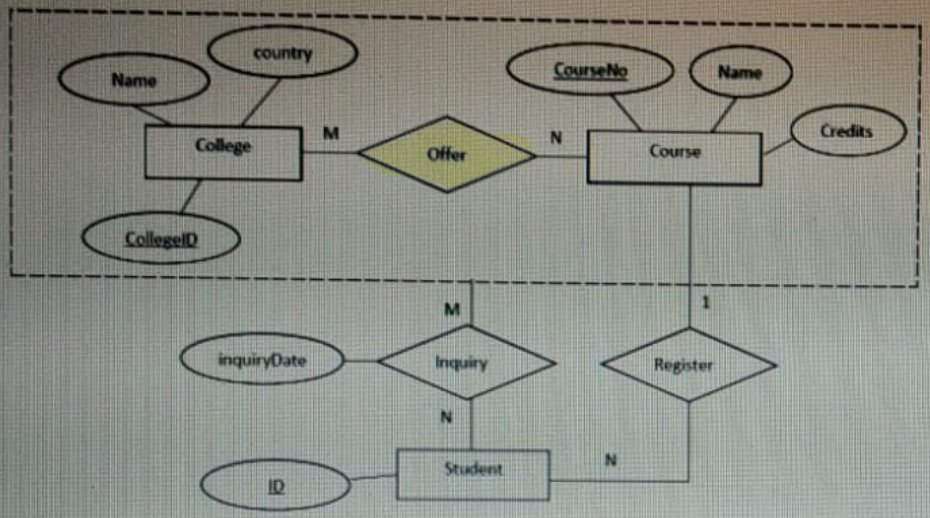
Question 6

Not yet answered

Marked out of 1.0

Flag question

Consider the following EER diagram:



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

Select one or more:

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

Next page

Quiz n

Finish attem

Time left 0:4

1 2

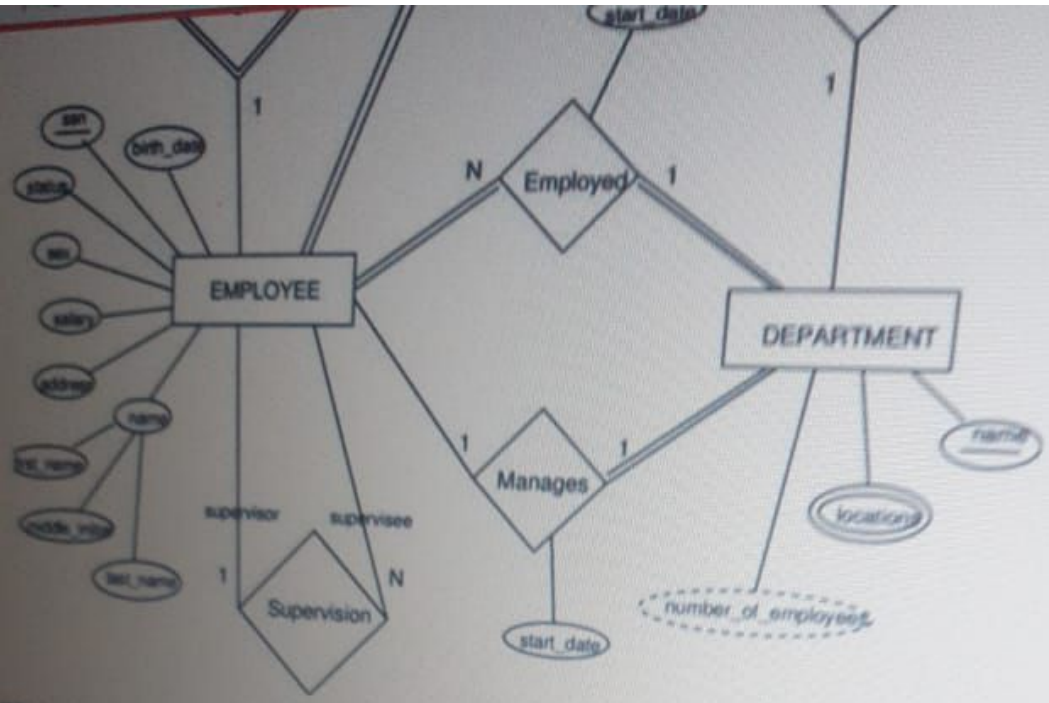
8 9

15 16

22

ERROR REPO

23

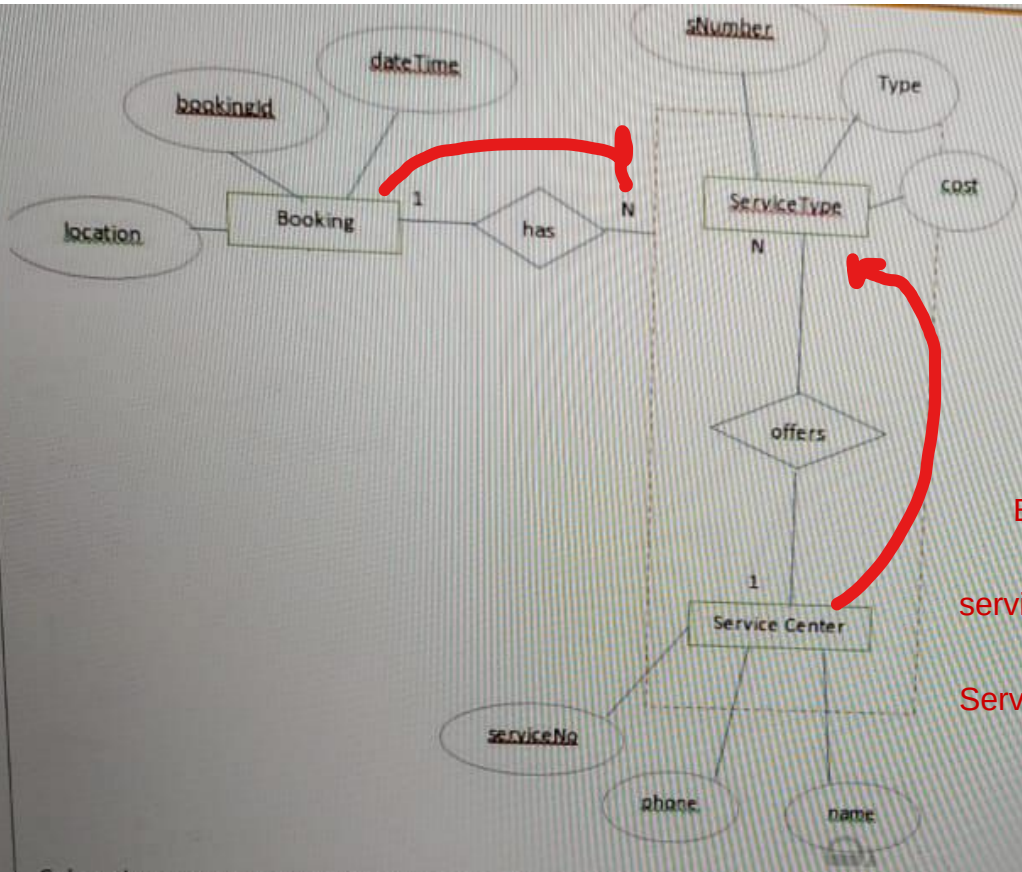


Which of the followings are correct with respect to the above diagram.

Select one or more:

- a. There could be Employees who had not worked on any project yet.
- b. There could be Projects which had not assigned any employees yet.
- c. All departments must be managed by an employee.
- d. Name is the primary key of dependent entity
- e. There can be 1 department with multiple locations.

g question



Booking(bookingId, dateTime, location)

serviceType(sNum, Type, cost, serviceNo

ServiceCenter(serviceNo, phone, Name

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

Select one:

a. Service Center (serviceNo, phone, name, serviceNo, bookingID)
Service Type (sNumber, type, cost)
Booking (bookingID, dateTime, location)

b. Service Center (serviceNo, phone, name)
Service Type (sNumber, type, cost, bookingID)
Booking (bookingID, dateTime, location, serviceNo)

c. Service Center (serviceNo, phone, name)
Service Type (sNumber, serviceNo, bookingID, type, cost)

Finish attempt ...

Time left 0:38:42

1 2 3
9 10 11
17 18 19 20

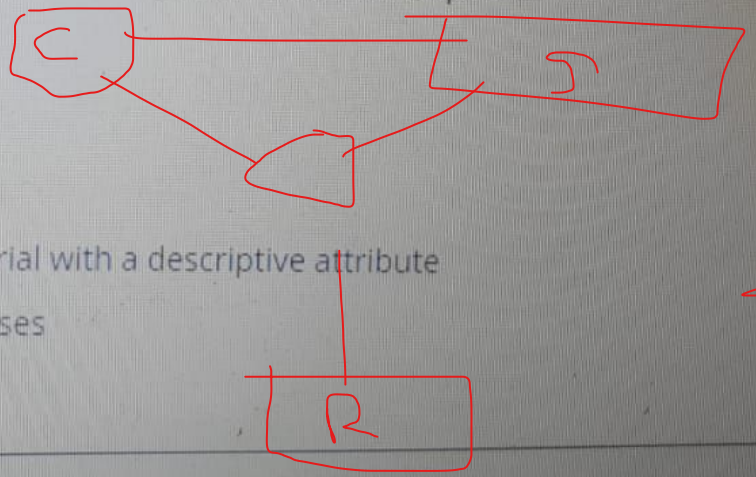
ERROR REPORTING

23

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

Next page

Sri Lanka Institute of Information Technology

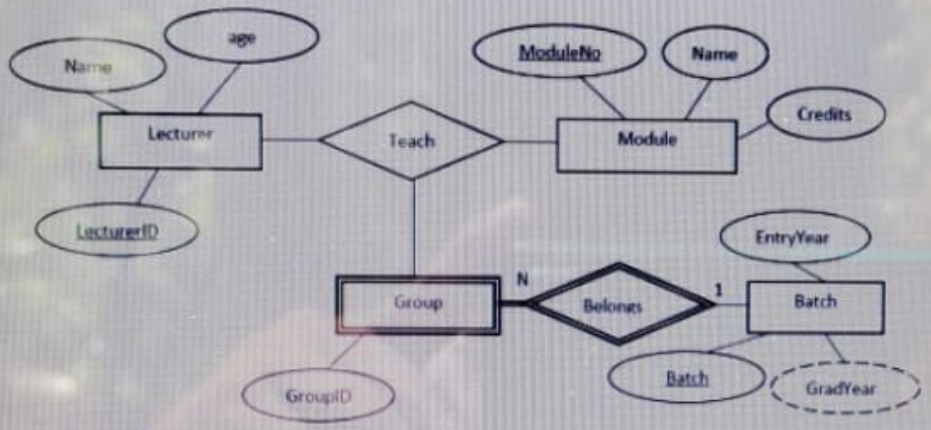
Question 6

Not yet answered

Marked out of 1.0

Flag question

Consider the EER diagram given below:



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

Select one or more:

- [ ] a. There can be many groups with the same group ID in the system
- [ ] b. There can be a lecturer who teach one module to more than one group
- [ ] c. There can be many batches with same value for batch
- [ ] d. Multiple lecturers can teach same module to the same group
- [ ] e. A group cannot exist without a batch

Next page

n 5

t answered

d out of 1.0

g question

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

Moodle

Sri Lanka Institute of Information Technology

Question 15
Not yet answered
Marked out of 1.0
Flag question

Consider the following relational schemes,
Car (Number, Owner, ChassisNo, Model, Year, Price)
Registration (Number, Owner, ChassisNo)
with following functional dependencies:
I. Number, Owner -> ChassisNo
II. ChassisNo -> Number, Owner, Model, Year
III. Model, Number, Year --> 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. 3NF
- b. BCNF
- c. Unnormalized
- d. 2NF
- e. 1NF

Quiz navigation

Finish attempt ...

Time left 0:24:36

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

Sri Lanka Institute of Information Technology

Question 15

Not yet answered

Marked out of 1.0

Flag question

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)
)
```

```
create table Product(
pid char(4)primary key,
pname varchar(30),
manufactureDate datetime default getdate(),
qty int,
constraint pidCheck CHECK(pid LIKE '[P|T|I][0-5][0-5][0-5]') ,
constraint qty_chek CHECK (qty>0),
);

insert into Product(pid,qty)
values ('T000',50);

select *
from Product
```

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

Select one or more:

- [x] 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
- [x] c. P333 is a valid pid that could be stored in the Product table
- [ ] d. Executing the following insert statement will cause an error to occur

```
Insert into Product(pid,qty) values ('T000',50)
```

- [ ] e. 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)
```

char

get both time and date by default. only one NULL

Quiz navig

Finish attempt ...

Time left 0:28:20

1 2 3 8 9 10 15 16 17 22

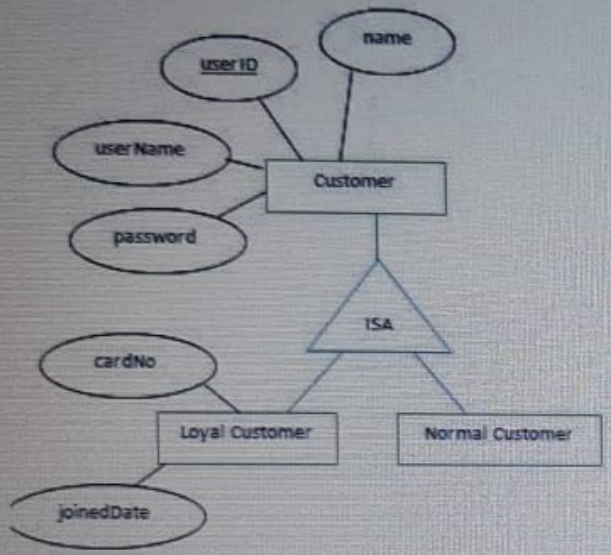
ERROR REPORTING

23

Next page

11
answered
out of 1.0
question

Consider the following EER diagram.



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

Select one or more:

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

option 3-null, option 4- boolean

both option 3 and 4 create relations for Super class

Quiz nav

Finish attempt

Time left 0:28:4

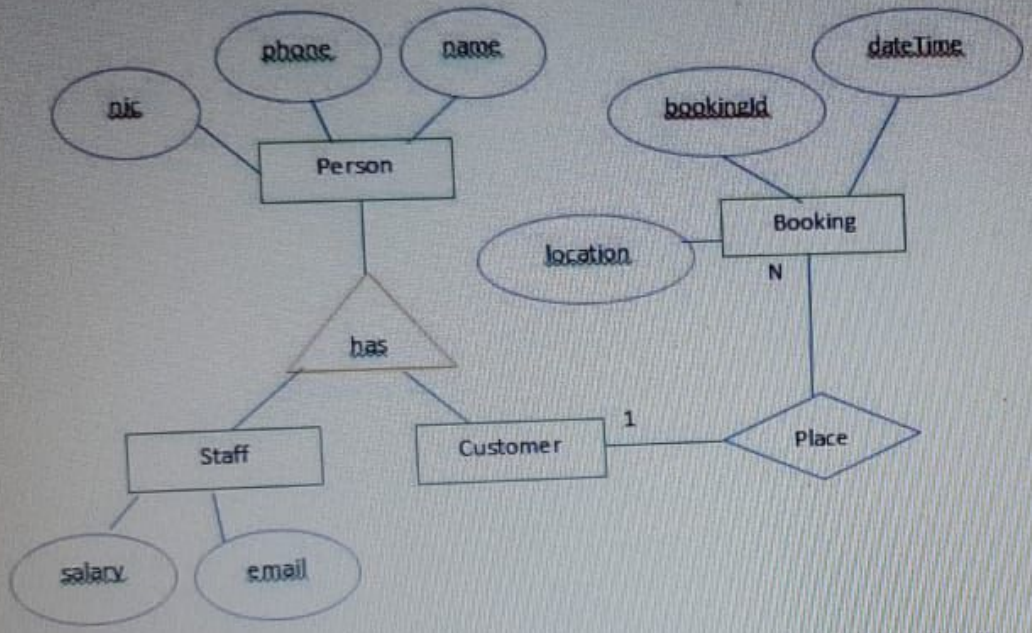
1 2 3
8 9 10
15 16 17
22

ERROR REPORT

23

12
answered
out of 1.0
question

Consider the following EER diagram. Note that Staff and Customer cover Person.



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

Select one:

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

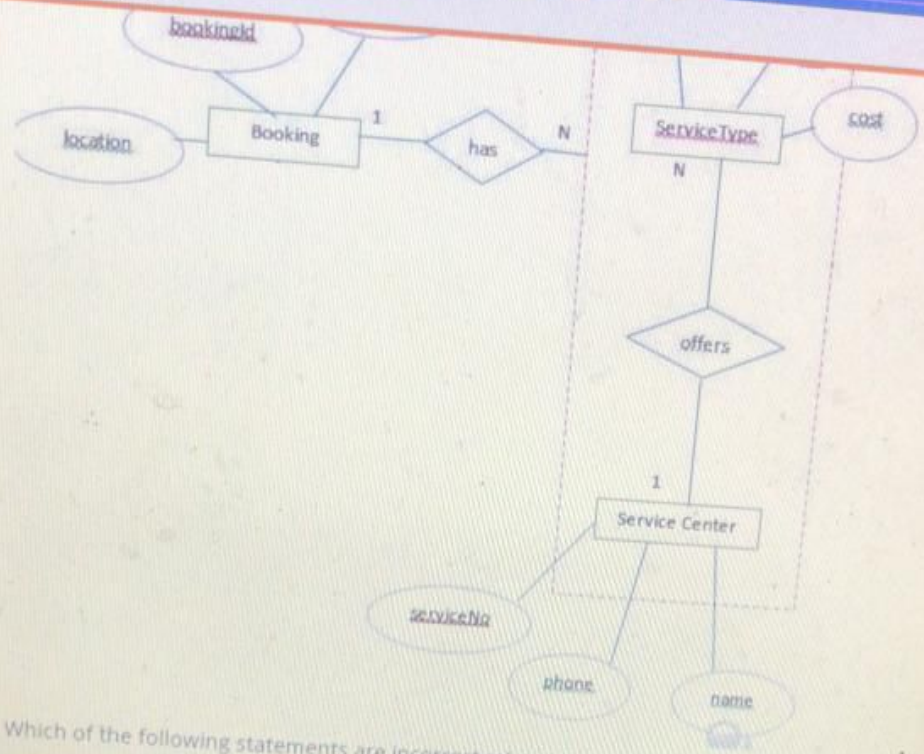
Quiz navigati

Finish attempt ...

Time left 0:27:23

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

ERROR REPORTING
23



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

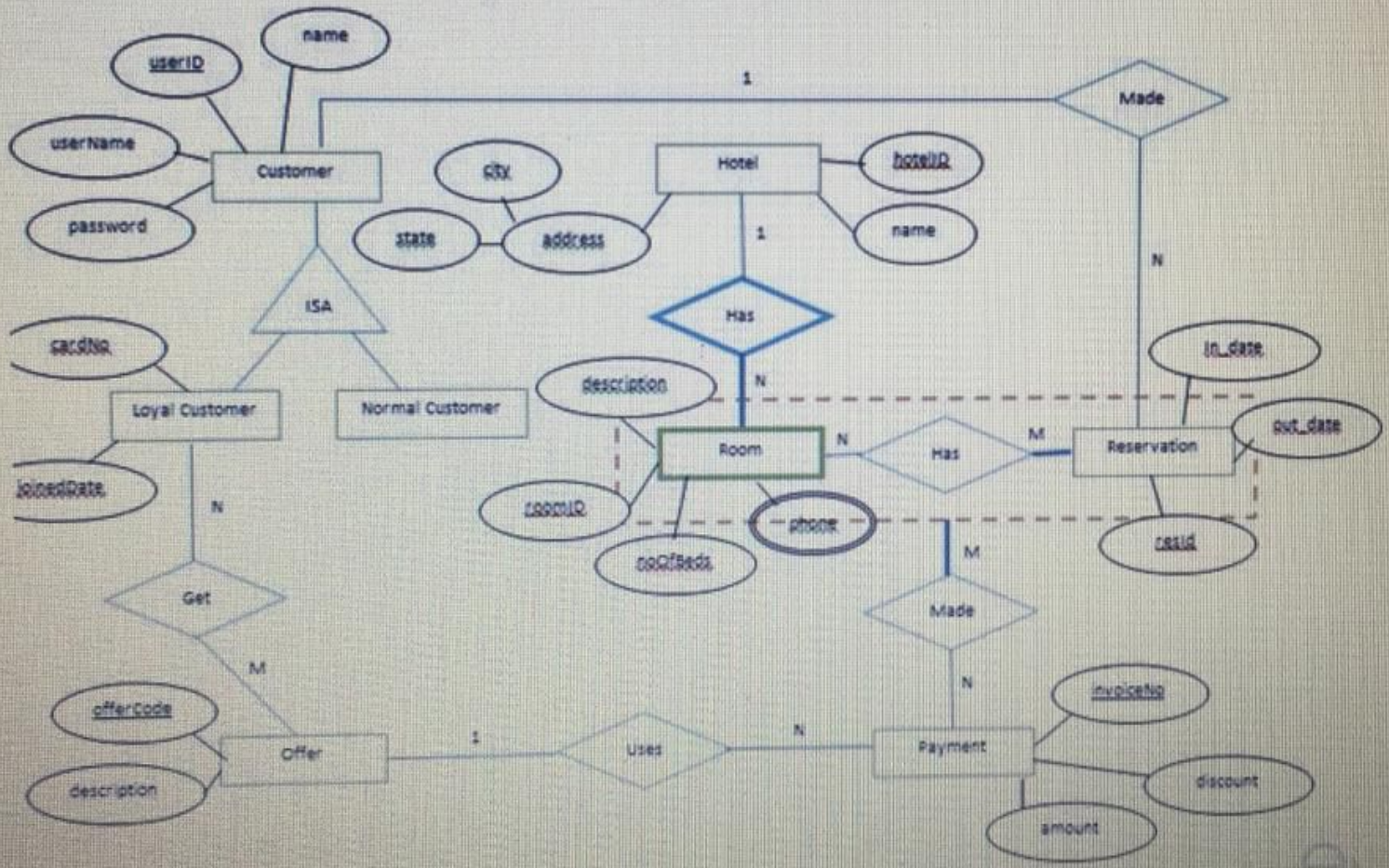
Question **10**

Not yet answered

Marked out of 1.0

Flag question

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



estion 11

t yet answered

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

Quiz nav

Finish attempt

Time left 0:28:0

1 2 3

8 9 10

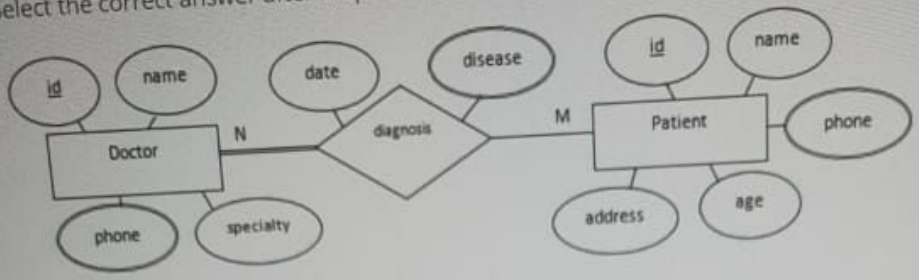
15 16 17

22

ERROR REPORT

23

Select the correct answer after map the following binary relationship into the relational model.



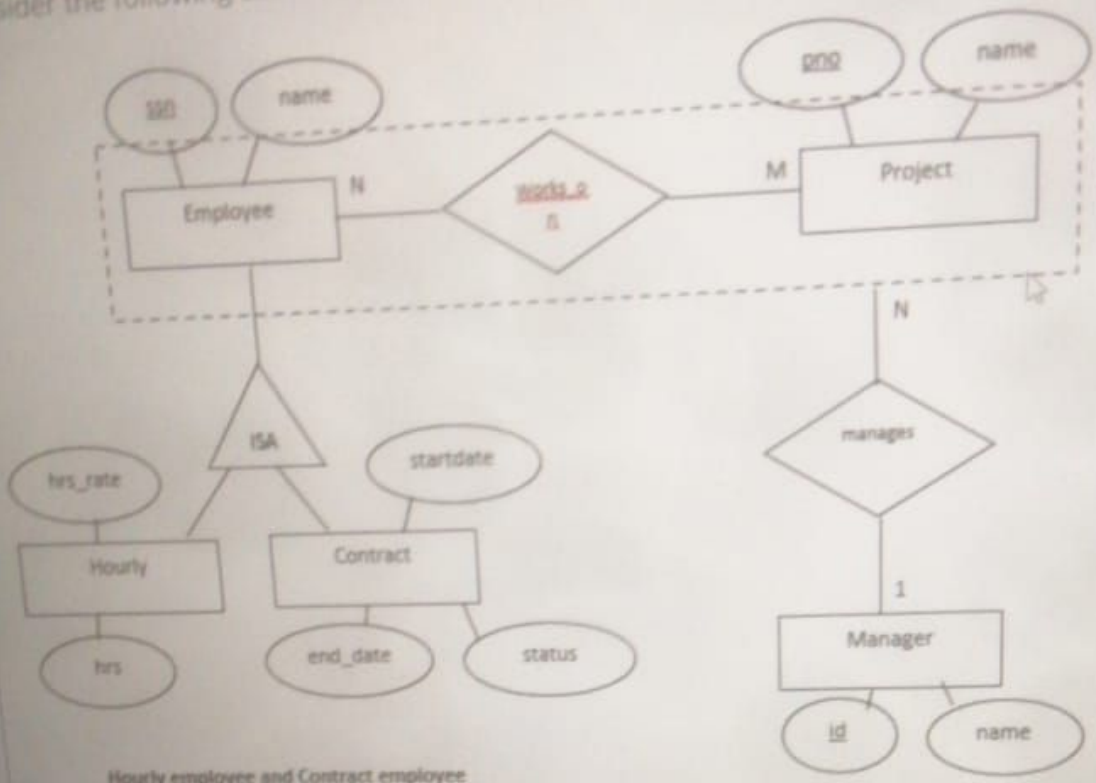
Select one:

- a. Doctor (id, name, specialty)
  Doctor_phone (id, phone)
  Patient (id, name, address, age)
  Patient_phone (id, phone)
  Diagnosis (pid, did, date, disease)
- b. Doctor (id, name, specialty, phone)
  Patient (id, name, address, age, phone)
  Diagnosis (pid, did, date, disease)
- c. Doctor (id, name, specialty)
  Doctor_phone (id, phone)
  Patient (id, name, address, age)
  Patient_phone (id, phone)
  Diagnosis (pid, did, date)
  Diagnosis_disease (pid, did, disease)
- d. Doctor (id, name, specialty)
  Doctor_phone (id, phone)

NetExam

Sri Lanka Institute of Information Technology

Consider the following EER model.



Hourly employee and Contract employee cover Employee

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

Select one:

- a. 5
- b. 7

19

answered

out of 1.0

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. 3

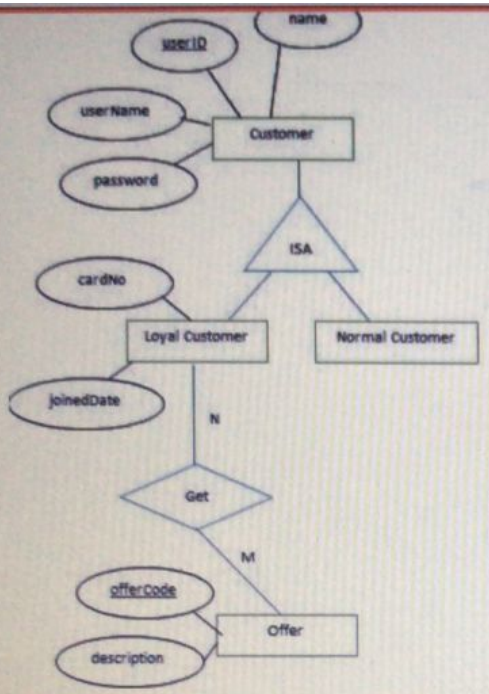
b. 6

c. 9

d. 5

11:27 PM

Flag question



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

Select one:

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

Finish at

Time left

1 2

9 10

17 18

ERROR R

23

13
answered
out of 1.0
question

Consider the following relational scheme with all atomic values.

Academic_Staff (SID, FacultyID, FacultyLocation, FacultyPhone, StaffName, StaffPosition, HoursPerWeek) with following functional dependencies.

SID -> StaffName, StaffPosition, FacultyID, FacultyLocation, FacultyPhone

FacultyID -> FacultyLocation, FacultyPhone

FacultyLocation -> FacultyID, FacultyPhone

FacultyPhone -> FacultyID, FacultyLocation

What is the primary key for the relation?

Select one:

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

Next page

NetExam

Sri Lanka Institute of Information Technology

Question 20

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

Next page

NetExamn

Sri Lanka Institute of Information Technology

Which of the following query will result in an error?

Select one or more:

- [ ] a. select dept_id, count(name) from employees
- [x] b. select eid from employees where salary>avg(salary)
- [ ] c. select dept_id, 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 avg(salary) from employees group by dept_id

Next page

ERROR REPORTING

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. A
- [ ] b. G
- [ ] c. C
- [x] d. AC
- [ ] e. K

Next page

NetExamn

Sri Lanka Institute of Information Technology

Question 20

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

Next page

NetExam

Sri Lanka Institute of Information Technology

Question 20

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 $\{($ $(4,6), (7,8)\}$. 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. 5
- b. 2
- c. 3
- d. 4
- e. 6

NetExamn

Sri Lanka Institute of Information Technology

Question 20

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 ha
$(4,6), (7,8)\}$. 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. 5
- b. 2
- c. 3
- d. 4
- e. 6

Question 22

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

estion 17
ot yet answered
arked out of 1.0
Flag question

Consider the following relations.

Product(P_code, Description, Stocking_date, QtyOnHand, MinQty, Price, Discount, V_code)

Vendor(V_code, Name, Address, Phone)

Here a vendor can supply more than one product but a product is supplied by only one vendor.

Which of the following SQL query will list the Name, Address and Phone of the vendors who are currently not supplying any product?

Select one:

a. LIST Name, Address, Phone
FROM Vendor
WHERE V_code NOT IN (SELECT V_code
FROM Product);

b. SELECT Name, Address, Phone
FROM Vendor
WHERE V_code != Product;

c. SELECT Name, Address, Phone
FROM Vendor
WHERE V_code NOT IN (SELECT V_code
FROM Vendor);

d. SELECT Name, Address, Phone
FROM Vendor
WHERE V_code NOT IN (SELECT V_code
FROM Product);

e. SELECT *
FROM Vendor
WHERE V_code != P_code;

Next page

Quiz navigation

Finish attempt ...

Time left 0:03:46

1 2 3 4 5 6
9 10 11 12 13 14
17 18 19 20 21 22

ERROR REPORTING

23

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

NetExam

Sri Lanka Institute of Information Technology

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 of managers is more than the average salary of employees in the same department
- d. the average salary is more than the average salary in the company

Next page

8

swered

t of 1.0

estion

Consider a relation Lecturer as follows

Lecturer(EmpNo CHAR(03), Name VARCHAR(50), Salary REAL, Category VARCHAR(25), DateJoined DATE, DNo CHAR(02))

Consider the following details of a Lecturer.

EmpNo – 175, Name – Dulip Silva, Salary - 12,000, Category – Instructor, DateJoined - SYSDATE , DNo – 05

Which of the following SQL statements will insert the above data into Lecturer relation?

Select one or more:

- ☐ a. INSERT (EmpNo, Name, Salary, Category , DateJoined, DNo) VALUES ('175', 'Dulip Silva', 12000, 'Instructor', SYSDATE, '05') INTO Lecturer;
- ☐ b. INSERT INTO Lecturer VALUES (175, 'Dulip Silva', 12000,'Instructor',SYSDATE, '05');
- ☐ c. INSERT INTO Lecturer (EmpNo, Name, Salary, Category ,DateJoined, DNo) VALUES (175, 'Dulip Silva', 12,000, 'Instructor', SYSDATE, '05');
- ☐ d. RT INTO Lecturer (EmpNo, Name, Salary, Category,DateJoined, DNo)VALUES ('175', 'Dulip Silva', 12000, 'Instructor', SYSDATE, '05');
- ☐ e. INSERT INTO Lecturer VALUES ('175','Dulip Silva', 12000, 'Instructor', SYSDATE, '05');

Next page

Fir

Tir

1

8

15

22

ERR

23

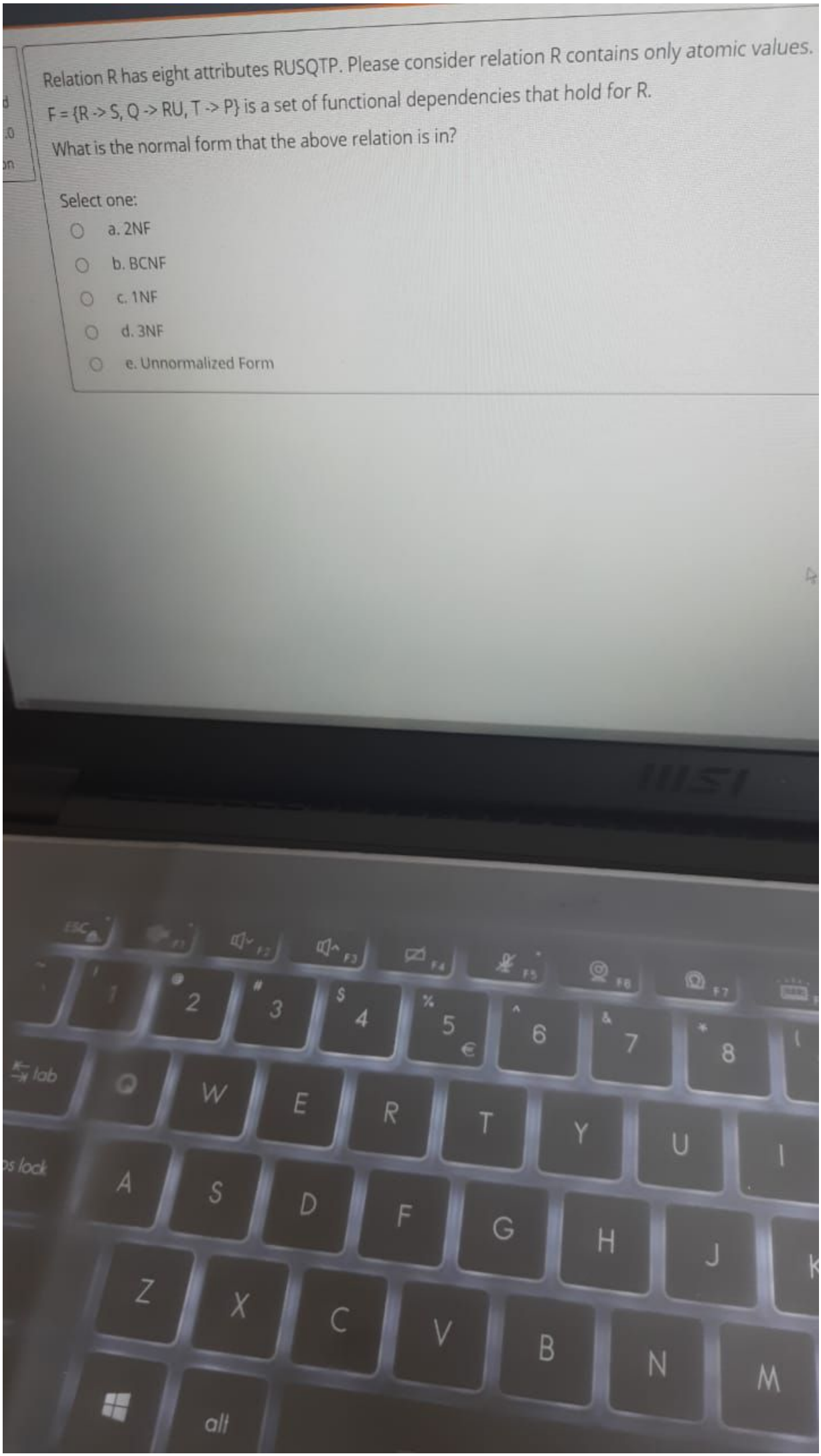
Relation R has eight attributes RUSQTP. Please consider relation R contains only atomic values.

F = {R -> S, Q -> RU, T -> 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. BCNF
- c. 1NF
- d. 3NF
- e. Unnormalized Form



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. 3
- c. 6
- d. 2
- e. 5

ion 16

et answered

ed out of 1.0

lag question

Consider the following relational schemes,

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

Registration (Number, Owner, ChassisNo)

with following functional dependencies:

I. Number, Owner -> ChassisNo

II. ChassisNo -> Number, Owner, Model, Year

III. Model, Number, Year --> 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. BCNF
- b. 1NF
- c. Unnormalized
- d. 2NF
- e. 3NF

17

ERRO

23

Sri Lanka Institute of Information Technology

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

NetExam

Sri Lanka Institute of Information Technology

Which of the following query will result in an error?

Select one or more:

- [ ] a. select dept_id, count(name) from employees
- [ ] b. select 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 dept_id, avg(salary) from employees group by dept_id

NetExam

Sri Lanka Institute of Information Technology

Consider the following relation

CustomerSales(CustNo, SalesDate, SalesAmount, SalesRepNo, Location)

with following set of functional dependencies,

CustNo, SalesDate –> SalesAmount, SalesRepNo, Location

SalesRepNo, SalesDate, SalesTime –> CustNo

Location, SalesDate, SalesTime –> SalesRepNo, CustNo

Identify candidate keys in the relation R.

Select one or more:

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

NetExam

Sri Lanka Institute of Information Technology

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

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 NOT IN ('sunny', 'cloudy')

c. SELECT city, temperature, condition
FROM weather
WHERE condition BETWEEN ('sunny', 'cloudy');

d. SELECT city, temperature, condition
FROM weather
WHERE condition IN ('sunny', 'cloudy')

e. SELECT city, temperature, condition
FROM weather
WHERE condition EXISTS ('sunny', 'cloudy')

NetExam

Sri Lanka Institute of Information Technology

2

wered

t of 1.0

estion

Consider the following schema

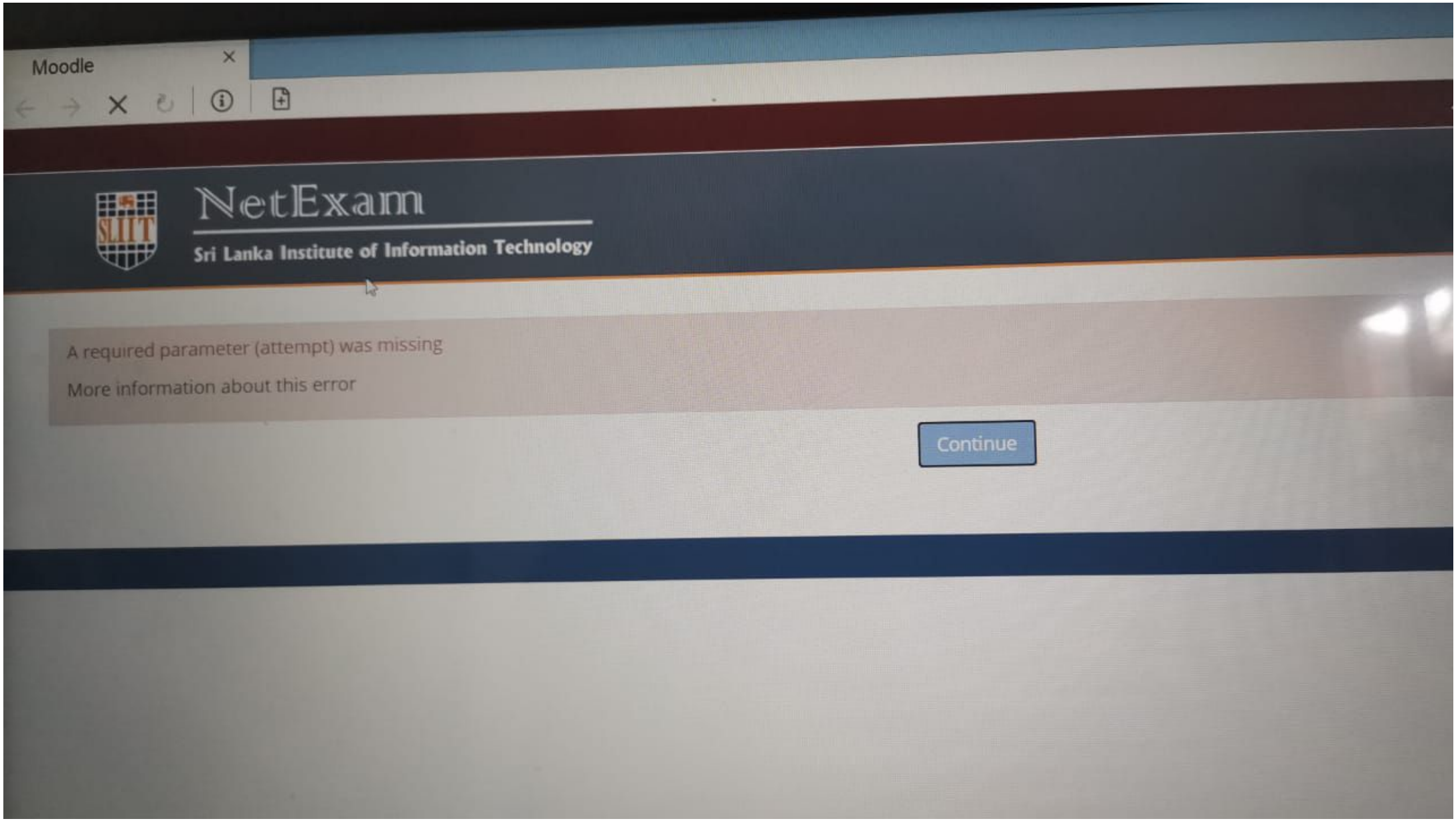
EMP(eid, ename, age, salary, did)

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. Employee with second highest age
- d. Second highest age


Moodle
NetExam
Sri Lanka Institute of Information Technology
A required parameter (attempt) was missing
More information about this error
Continue

loodle

tion 22
yet answered
ked 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. Query2 and Query4 return identical row sets but Query1 and Query2 return different row sets.
- b. All queries return identical row sets
- c. Query3 returns strictly fewer rows than Query2
- d. Query4 will encounter an integrity violation at runtime

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 Doctoer, appointmentDate
                     FROM Appointments) AS T );
```

Select one:

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

Question 20

Not yet answered

Marked out of 1.0

Flag question

Which of the following query will result in an error?

Select one or more:

- [ ] a. select avg(salary) from employees group by dept_id
- [ ] 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, count(name) from employees
- [ ] e. select dept_id, job_id, avg(salary) from employees group by dept_id, job_id

NetExam

Sri Lanka Institute of Information Technology

Consider a relation Lecturer as follows

Lecturer(EmpNo CHAR(03), Name VARCHAR(50), Salary REAL, Category VARCHAR(25), DateJoined D

Consider the following details of a Lecturer.

EmpNo – 175, Name – Dulip Silva, Salary - 12,000, Category – Instructor, DateJoined - SYSDATE , DNo

Which of the following SQL statements will insert the above data into Lecturer relation?

Select one or more:

- a. INSERT INTO Lecturer (EmpNo, Name, Salary, Category ,DateJoined, DNo) VALUES (175, 'Dulip Si 'Instructor', SYSDATE, '05');
- b. INSERT (EmpNo, Name, Salary, Category , DateJoined, DNo) VALUES ('175', 'Dulip Silva', 12000, 'Ins '05') INTO Lecturer;
- c. RT INTO Lecturer (EmpNo, Name, Salary, Category,DateJoined, DNo)VALUES ('175', 'Dulip Silva', 120 SYSDATE, '05');
- d. INSERT INTO Lecturer VALUES (175, 'Dulip Silva', 12000,'Instructor',SYSDATE, '05');
- e. INSERT INTO Lecturer VALUES ('175','Dulip Silva', 12000, 'Instructor', SYSDATE, '05');

Sri Lanka Institute of Information Technology

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 obt
he/she had completed.

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

Select one or more:

- [ ] a. None of the above
- [ ] 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. select s.sname
  from student s LEFT OUTER JOIN Grades g
  where g.sid is NULL

Question 21

Not yet answered

Marked out of 1.0

Flag question

Consider the following relational schema:

Doctor (did, 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 patiend. What does the following query return?

employee(empId, empName, empDept)

customer(custId, custName, salesRepId, rating)

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

```
SELECT 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 at least one of their patients having fever.
- c. Names of all the doctors with none of their patients having fever
- d. Names of all the doctors with at most one of their patient having fever.

Next page

Quiz navigation

Finish attempt ...

Time left 0:01:21

1 2 3 4 5 6 7

9 10 11 12 13 14 15

17 18 19 20 21 22

ERROR REPORTING

23

ASUS VivoBook