

Cs312 Final Term Preparation File

1. -----Statement is used to view the data from database?

- A) Select
- B) Join
- C) View
- D) Create

2. Which is not related to SQL?

- A) Data Translation Language
- B) Data Manipulation Language
- C) Data definition language
- D) Data control Language

3. Which wildcard character is used in SQL?

- A) \$
- B) #
- C) !
- D) %

4. Which of the following command will be used if you want to permanently save the changes made in database?

Select the correct option

- A. Save point
- B. Store
- C. Commit
- D. Rollback

5. Where closure restricts-----returned as a result after execution of select command?

- A Column
- B Attributes

By Maha Rana

C Rows

D Tables

6. Single Functions one or more argument (s) and return -----Value (s) for each row returned by the query?

A Two

B four

C Three

E One

7. Which logical operator will be used in where clause of SQL statement if you want to display the list of all employee names who are earning more than 2500 but less than 5000?

A) XOR

B) AND

C) OR

D) NOT

8. The Rollback statement is the transactional command used to save changes invoked by a transaction to the database?

A) True

B) False

9. ----- is used to extract unique values of column from the table?

A) Single

B) *

C) Unique

D) Distinct

10. ----- is used in the transaction which have not already been stored in the database?

A) Truncate

B) Rollback

C) Undo

D) Commit

11. Groups of functions manipulate groups of rows to give results per group of rows?

- A) Four
- B) One
- C) Three
- D) Two

12. Insert, Update and delete are the command?

- A) DOL
- B) DLL
- C) DML
- D) DCA

13. ----- is Multi Rows/Group function?

- A) ROUND
- B) CONCAT
- C) COUNT
- D) INSERT

14. Which of these is NOT an anomaly?

- a) Insert anomaly
- b) Delete anomaly
- c) Search anomaly
- d) Update anomaly

Answer: c) Search anomaly

15. Insert anomalies typically occur due to:

- a) Poor table design
- b) Missing data constraints
- c) Complex relationships between attributes
- d) Redundant relationships

Answer: a) Poor table design

16. Which anomaly results in inconsistent data after multiple updates?

- a) Delete anomaly

By Maha Rana

- b) Insert anomaly
- c) Update anomaly
- d) none of the above

Answer: c) Update anomaly

17. First Normal Form (1NF) focuses on:

- a) Avoiding transitive dependencies
- b) Removing multi-valued attributes
- c) Eliminating partial dependencies
- d) Combining repeating groups

Answer: b) Removing multi-valued attributes

18. Which of the following is required for Second Normal Form (2NF)?

- a) All non-key columns must depend on the whole primary key
- b) The table must eliminate all repeating groups
- c) There should be no transitive dependencies
- d) All non-key attributes must have foreign key dependencies

Answer: a) All non-key columns must depend on the whole primary key

19. Normalization is primarily used to:

- a) Improve query performance
- b) Enhance data retrieval speed
- c) Ensure logical relationships between data attributes
- d) Minimize database size

Answer: c) Ensure logical relationships between data attributes

20 .The main purpose of demoralization is:

- a) To reduce redundant data
- b) To enhance data integrity
- c) To decrease query execution time
- d) To enforce database constraints

Answer: c) To decrease query execution time

21. Which situation would typically require demoralisation?

- a) Tables with minimal data
- b) Queries requiring many joins across large datasets
- c) Complex relationships between small tables
- d) Adding primary keys to all tables

Answer: b) Queries requiring many joins across large datasets

22. **Storing calculated values in a table is an example of:**

- a) Normalization
- b) Denormalization
- c) Adding redundancy
- d) Optimization anomaly

Answer: b) Denormalization

23. **What does the "Atomicity" property ensure in a transaction?**

- a) Changes are permanent once made
- b) A transaction executes independently
- c) Either all operations execute, or none do
- d) Database remains consistent during failures

Answer: c) Either all operations execute, or none do

24. **Which ACID property prevents one transaction from interfering with another?**

- a) Atomicity
- b) Consistency
- c) Isolation
- d) Durability

Answer: c) Isolation

25. **What happens if a transaction violates the "Consistency" property?**

- a) The transaction fails entirely
- b) The database enters an inconsistent state
- c) Transaction is rolled back
- d) Data locks remain uncommitted

Answer: b) The database enters an inconsistent state

26. **What is the role of the UPDATE statement in SQL?**

- a) Modify the schema
- b) Delete rows from the table
- c) Insert rows in a table

d) Change existing records in a table

Answer: d) Change existing records in a table

27. Which SQL keyword retrieves only unique values?

a) UNIQUE

b) DISTINCT

c) PRIMARY

d) FILTER

Answer: b) DISTINCT

28. Which command removes all rows from a table but retains the structure?

a) DELETE

b) DROP

c) TRUNCATE

d) REMOVE

Answer: c) TRUNCATE

29. What does a "Commit" command do in a transaction?

a) Undoes the transaction changes

b) Saves the transaction changes permanently

c) Locks the database for updates

d) Ensures transactions execute concurrently

Answer: b) Saves the transaction changes permanently

30. What is the default isolation level in most RDBMS systems?

a) Serializable

b) Read Uncommitted

c) Read Committed

d) Repeatable Read

Answer: c) Read Committed

31. **An index in a database:**

- a) Creates a backup of the table data
- b) Speeds up data retrieval
- c) Reduces the size of the database
- d) Enables table partitioning

Answer: b) Speeds up data retrieval

32. **A composite index is created on:**

- a) Only primary keys
- b) Foreign keys only
- c) Multiple columns
- d) One specific column

Answer: c) Multiple columns

33. **Which join returns all rows where a match is found, excluding unmatched rows?**

- a) Cross Join
- b) Left Outer Join
- c) Inner Join
- d) Right Outer Join

Answer: c) Inner Join

34. **A Left Outer Join includes:**

- a) Only matching rows
- b) All rows from the left table and matching rows from the right
- c) All rows from the right table
- d) Unmatched rows as NULL from both tables

Answer: b) All rows from the left table and matching rows from the right

35. -----statement is used to view the data in database.

- A) Create

By Maha Rana

- B) View
- C) Select
- D) Join

36. The correct syntax of insert statement is:

- A) Insert Values (value1, value2,...) into database
- B) Insert into tablename values (value1, values2,...)
- C) Insert into database values (value1, value2,..)
- D) Insert values (value1, value2,...) into database

CS312 - Database Modeling and Design (Quiz 3)

Question # 2 of 10 (Start time: 02:27:26 PM, 05 January 2024)

Which of the following command will be used if you want to permanently save the changes made in database?

Select the correct option

- | | |
|----------------------------------|-----------|
| <input checked="" type="radio"/> | Commit |
| <input type="radio"/> | Rollback |
| <input type="radio"/> | Store |
| <input type="radio"/> | Savepoint |

Question # 8 of 10 (Start time: 03:10:37 PM, 25 January 2024)

----- is used to extract unique values of column from the table.

Select the correct option

- | | |
|----------------------------------|----------|
| <input type="radio"/> | Unique |
| <input type="radio"/> | Single |
| <input checked="" type="radio"/> | Distinct |

Question # 10 of 10 (Start time: 03:12:12 PM, 25 January 2024)

The _____ operator in SQL works like OR operator and allows to search for a value from given list of values.

Select the correct option

<input type="radio"/>	BETWEEN
<input checked="" type="radio"/>	IN
<input type="radio"/>	LIKE
<input type="radio"/>	ANY

CS312 - Database Modeling and Design (Quiz 4)

Question # 9 of 10 (Start time: 03:11:34 PM, 25 January 2024)

----- clause is used in collaboration with the SELECT statement to arrange identical data into groups.

Select the correct option

- | | |
|----------------------------------|----------|
| <input type="radio"/> | Order by |
| <input checked="" type="radio"/> | Group by |
| <input type="radio"/> | Having |
| <input type="radio"/> | Drop |

Question # 5 of 10 (Start time: 03:09:25 PM, 25 January 2024)

"Where Clause" restricts _____ returned as a result after execution of select command.

Select the correct option

<input checked="" type="radio"/>	Rows
<input type="radio"/>	Tables
<input type="radio"/>	Columns
<input type="radio"/>	Attributes

CS312 - Database Modeling and Design (Quiz 4)

Question # 3 of 10 (Start time: 03:07:47 PM, 25 January 2024)

BETWEEN operator is used in _____ clause.

Select the correct option

<input type="radio"/>	SELECT
<input type="radio"/>	HAVING
<input checked="" type="radio"/>	WHERE
<input type="radio"/>	GROUP BY

CS312 - Database Modeling and Design (Quiz 4)

Question # 4 of 10 (Start time: 01:08:51 PM, 25 January 2024)

..... combine two or more conditions into a compound condition in order to get the specific required results.

Select the correct option

- Boolean Operators
- Conditional Operators
- Logical Operators
- Arithmetic Operators

CS312 - Database Modeling and Design (Quiz 4)

Question # 2 of 10 (Start time: 03:06:52 PM, 25 January 2024)

In SQL which operator uses Wildcard characters?

Select the correct option

<input type="radio"/>	BETWEEN
<input type="radio"/>	IN
<input checked="" type="radio"/>	LIKE
<input type="radio"/>	AND

Question # 7 of 10 (Start time: 02:59:57 PM, 25 January 2024)

Having Clause places conditions on _____

Select the correct option

<input type="radio"/>	Whole/Selected Column
<input type="radio"/>	Single Row
<input type="radio"/>	All Rows
<input checked="" type="radio"/>	Groups created by the GROUP BY clause

Question # 9 of 10 (Start time: 03:02:46 PM, 25 January 2024)

_____ is a Multi Rows/Group function.

Select the correct option

<input type="radio"/>	ROUND
<input checked="" type="radio"/>	COUNT
<input type="radio"/>	CONCAT
<input type="radio"/>	INSTR

Question # 4 of 10 (Start time: 02:57:04 PM, 25 January 2024)

SQL stands for _____

Select the correct option

<input type="radio"/>	Structured Question Language
<input type="radio"/>	Strict Query Language
<input checked="" type="radio"/>	Structured Query Language
<input type="radio"/>	Struct Query Language

Question # 5 of 10 (Start time: 02:57:41 PM, 25 January 2024)

"Where Clause" restricts _____ returned as a result after execution of select command.

Select the correct option

<input type="radio"/>	Columns
<input checked="" type="radio"/>	Rows
<input type="radio"/>	Tables
<input type="radio"/>	Attributes

Question # 7 of 10 (Start time: 02:59:57 PM, 25 January 2024)

Having Clause places conditions on _____.

Select the correct option

<input type="radio"/>	Whole/Selected Column
<input type="radio"/>	Single Row
<input type="radio"/>	All Rows
<input checked="" type="radio"/>	Groups created by the GROUP BY clause

Question # 9 of 10 (Start time: 03:02:46 PM, 25 January 2024)

_____ is a Multi Rows/Group function.

Select the correct option

<input type="radio"/>	ROUND
<input checked="" type="radio"/>	COUNT
<input type="radio"/>	CONCAT
<input type="radio"/>	INSTR

Question # 4 of 10 (Start time: 02:57:04 PM, 25 January 2024)

SQL stands for _____

Select the correct option

<input type="radio"/>	Structured Question Language
<input type="radio"/>	Strict Query Language
<input checked="" type="radio"/>	Structured Query Language
<input type="radio"/>	Struct Query Language

Assessment Quiz ×

Post-Assessment

Question # 3 of 3 Time Left: 77 sec(s)

In the following diagram, sno=I can be associated with -----

Staff	
#Sno	
*Sname	
*Designation	
*Address	
Full-time	Part - time
*Salary	*Rate per

Select the correct option Reload Math Equations

<input type="radio"/>	Full-time but cannot with Part-time.
<input checked="" type="radio"/>	either full-time or Part-time.
<input type="radio"/>	Both Full-time and Part-time.
<input type="radio"/>	Part -time but cannot with full -time.

Click to Save Answer & Move to Next Question

Assessment Quiz

Post-Assessment

Question # 1 of 3 Time Left: 54 sec(s)

Consider the following ERD and identify which of the following statement is correct for "Leaves" entity.

```
graph TD; Employee[Employee] --> PartTime[Part-time]; Employee --> FullTime[Full-time]; Accounts[Accounts] --> Employee; Loan[Loan] --> FullTime; Leaves[Leaves] --> FullTime;
```

Select the correct option

- Only Part-time employee can apply for study leaves
- Only Full-time employee can apply for study leaves
- All types of employee can apply for study leaves
- Only those employee can apply for study leaves who don't get any loan

[Reload Math Equations](#)

[Click to Save Answer & Move to Next Question](#)

Assessment Quiz

Post-Assessment

Question # 3 of 3 Time Left: 76 sec(s)

Consider the following ERD and identify which of the following statement is correct for "Accounts" entity.

```
graph TD; Employee[Employee] --- Part-time[Part-time]; Employee --- Full-time[Full-time]; Accounts[Accounts] --- Part-time; Accounts --- Full-time; Leaves[Leaves] --- Full-time; Loan[Loan] --- Full-time;
```

Select the correct option

- Account department prepare the salary slip for Part-time employees only.
- Account department prepare the salary slip for all types of employees.
- Account department can't apply for study leaves.
- Account department prepare the salary slip for Full-time employees only.

[Reload Math Equations](#)

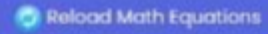
[Click to Save Answer & Move to Next Question](#)

Question # 3 of 3

Time Left: 84 sec(s)

_____ is the first property of Super & Sub Types which states that there should be at least two sub types and each subtype should have at least one attribute,

Select the correct option

 Reload Math Equations

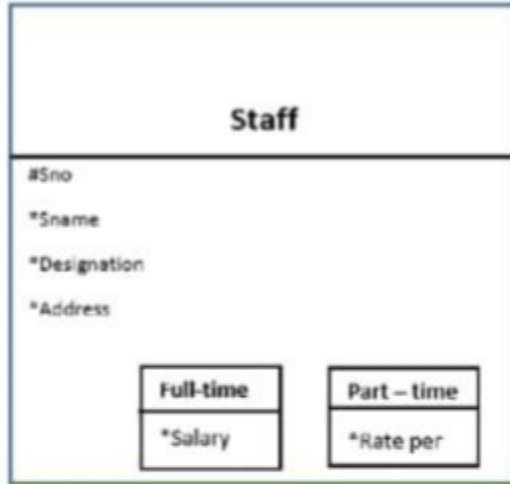
- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Integrity |
| <input checked="" type="radio"/> | Exhaustive |
| <input type="radio"/> | Reflexive |
| <input type="radio"/> | Transitivity |

Click to Save Answer & Move to Next Question

Question # 2 of 3

Time Left: 80 sec(s)

In the following diagram, if there is sno() at any particular time, then this sno() can be associated with _____ of its sub-type



Select the correct option

[Reload Math Equations](#)

- Only three
- Only two
- Maximum
- Only one

Post-Assessment

Question # 3 of 3

Time Left: 80 sec(s)

Every sub-type maintains _____ of relationships and attributes from other sub-types.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Association |
| <input type="radio"/> | Composition |
| <input checked="" type="radio"/> | isolation |
| <input type="radio"/> | Aggregation |

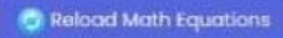
[Click to Save Answer & Move to Next Question](#)

Question # 2 of 3

Time Left: 61 sec(s)

Attributes and relationship of a specific sub-type is having with other entities are _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Not shareable |
| <input type="radio"/> | Invalid |
| <input type="radio"/> | Shareable |
| <input type="radio"/> | Valid |

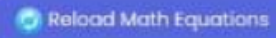
[Click to Save Answer & Move to Next Question](#)

Question # 1 of 3

Time Left: 77 sec(s)

The sub types are mutually exclusive as _____

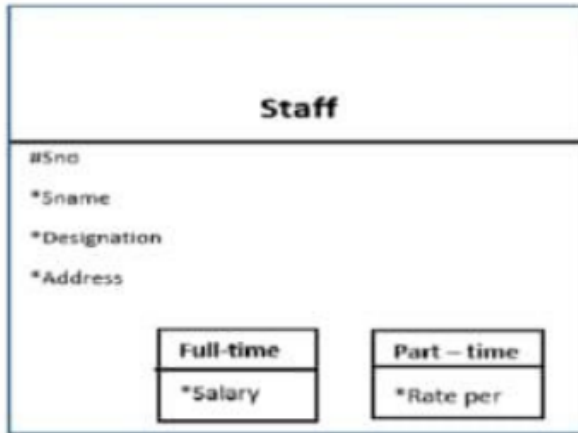
Select the correct option

 Reload Math Equations

- They don't know about each other
- They don't know about super type
- They know about each other
- They don't know about their attributes

[Click to Save Answer & Move to Next Question](#)

In the following diagram if we remove "rate per" attribute from sub-type "Part-time" then it's a _____.



Select the correct option

[Reload Math Equations](#)

- Basic sub-type
- Valid sub-type
- Invalid sub-type
- Parent sub-type

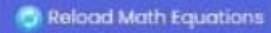
Post-Assessment

Question # 2 of 3

Time Left: 69 sec(s)

According to exhaustive property, if a subtype has at least one specific attribute, then it is considered as _____

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Parent sub-type |
| <input type="radio"/> | Basic sub-type |
| <input checked="" type="radio"/> | Valid sub-type |
| <input type="radio"/> | Invalid sub-type |

Click to Save Answer & Move to Next Question

Question # 2 of 3

Time Left: 87 sec(s)

In EERD, Common attributes are placed in _____

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Real type |
| <input type="radio"/> | Arche type |
| <input type="radio"/> | Sub type |
| <input checked="" type="radio"/> | Super type |

[Click to Save Answer & Move to Next Question](#)

Post-Assessment

Question # 1 of 3

Time Left: 39 sec(s)

According to exhaustive property, which of the following statement is correct?

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|---|
| <input type="radio"/> | Every instance of the super type is also an instance of one of the super types. |
| <input checked="" type="radio"/> | Every instance of the super type is also an instance of one of the sub types. |
| <input type="radio"/> | Every instance of the sub type is also an instance of one of the super types. |
| <input type="radio"/> | Every instance of the sub type is also an instance of one of the sub types. |

[Click to Save Answer & Move to Next Question](#)

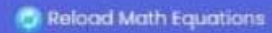
Post-Assessment

Question # 2 of 3

Time Left: 74 sec(s)

According to exhaustive property, which of the following statement is correct?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | Super type without no specific attributes is not a valid super type |
| <input checked="" type="radio"/> | Sub type without no specific attributes is not a valid Sub type |
| <input type="radio"/> | Super type without no specific attributes is a valid super type |
| <input type="radio"/> | Sub type without no specific attributes is a valid Sub type |

Click to Save Answer & Move to Next Question

Post-Assessment

Question # 2 of 3

Time Left: 79 sec(s)

The entity involved in the process of specialization is considered as_____

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | Medium class of entity |
| <input type="radio"/> | Mini class of entity |
| <input checked="" type="radio"/> | Super class of entity |
| <input type="radio"/> | Subclass of entity |

Click to Save Answer & Move to Next Question


Post-Assessment

Question # 2 of 3

Time Left: 68 sec(s)

In the context of EERD, which of the following statement is correct?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Super Type is derived from the sub type and, it can have its own attributes and relationships. |
| <input type="radio"/> | Sub Type is derived from the super class and, it can have its own attributes and but can have any relationships. |
| <input type="radio"/> | Sub Type is derived from the super type and, it cannot have its own attributes and relationships. |
| <input checked="" type="radio"/> | Sub Type is derived from the super type and, it can have its own attributes and relationships. |

Click to Save Answer & Move to Next Question


Post-Assessment

Question # 1 of 3

Time Left: 58 sec(s)

In the context of EERD, which of the following is a subtype discriminator?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | An attribute of the subtype whose values determine the subtype |
| <input type="radio"/> | An attribute of the subtype whose values determine the super type |
| <input type="radio"/> | An attribute of the super type whose values determine the super type |
| <input checked="" type="radio"/> | An attribute of the super type whose values determine the subtype |

Click to Save Answer & Move to Next Question

Post-Assessment

Question # 3 of 3

Time Left: 86 sec(s)

A super type/subtype hierarchy has which of the following features?

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|---|
| <input type="radio"/> | Subtypes at the lower lever in the hierarchy inherit attributes only from their immediate super type. |
| <input type="radio"/> | Subtypes at the higher lever in the hierarchy inherit attributes only from their immediate subtype. |
| <input type="radio"/> | Attributes are assigned at the lowest logical level. |
| <input checked="" type="radio"/> | Attributes are assigned at the highest logical level. |

[Click to Save Answer & Move to Next Question](#)

Question # 3 of 3

Time Left: 82 sec(s)

----- can be defined as the problems that can occur due to poor planning and designing of the databases.

Select the correct option

[Reload Math Equations](#)

- Interrupt
- Error
- Bug
- Anomaly

[Click to Save Answer & Move to Next Question](#)

Question # 2 of 3

Time Left: 83 sec(s)

Identify the anomaly present in the following scenario.

If there are multiple records and we fail to update all the instances then it will result in data-inconsistency across database which will result in wrong reporting of data which is not acceptable.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | Update anomaly |
| <input type="radio"/> | Selection anomaly |
| <input type="radio"/> | Insert anomaly |
| <input type="radio"/> | Delete anomaly |

[Click to Save Answer & Move to Next Question](#)

Question #1 of 3

Time Left: 87 sec(s)

An anomaly in a relation is _____?

Select the correct option

 Reload Math Equations

- An error in the design
- An unusual data value
- An undesirable consequence of changing the data
- A duplicate data value caused by changing the data

[Click to Save Answer & Move to Next Question](#)

Post-Assessment

Question # 3 of 3

Time Left: 86 sec(s)

----- anomaly occurs when the data is lost due to the removal of some other data.

Select the correct option

 Reload Math Equations

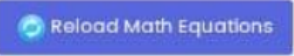
<input type="radio"/>	Selection
<input type="radio"/>	Update
<input type="radio"/>	Insert
<input checked="" type="radio"/>	Delete

Question # 1 of 3

Time Left: 74 sec(s)

Which of the following anomaly is occurred when certain attributes are lost due to the deletion of other attributes?

Select the correct option

 Reload Math Equations

- Insert anomaly
- Selection anomaly
- Update anomaly
- Delete anomaly

Post-Assessment

Question # 1 of 3

Time Left: 82 sec(s)

Insert anomaly can be avoided by storing data in _____table(s).

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Single |
| <input type="radio"/> | Temporary |
| <input type="radio"/> | Unique |
| <input checked="" type="radio"/> | Multiple |

 Click to Save Answer & Move to Next Question

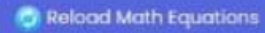
Post-Assessment

Question # 1 of 3

Time Left: 79 sec(s)

According to EERD model, which of the following statement is correct.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | The details of the sub types are included in super types. |
| <input type="radio"/> | The details of the subtypes are available in the super types but sub types do not know anything about super types. |
| <input checked="" type="radio"/> | The details of the super types are available in the subtypes but super types do not know anything about subtypes. |
| <input type="radio"/> | The details of the super types are not available in the subtypes |

[Click to Save Answer & Move to Next Question](#)


Post-Assessment

Question # 3 of 3

Time Left: 78 sec(s)

In Extended Entity Relationship Diagram, common attributes which are repeated among multiple entities are placed in _____ and are shared with _____ to avoid redundancy.

Select the correct option

 Reload Math Equations

- Sub type, Super types
- Sub type, simple systems
- Super type, complex systems
- Super type, Sub types

Click to Save Answer & Move to Next Question

Question # 2 of 3

Time Left: 83 sec(s)

Which of the following is the extension to the original Entity Relationship Diagram (ERD) Model with reusability concept.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------------------|
| <input type="radio"/> | External Entity Relationship Diagram |
| <input checked="" type="radio"/> | Extended Entity Relationship Diagram |
| <input type="radio"/> | Extreme Entity Relationship Diagram |
| <input type="radio"/> | Extra Entity Relationship Diagram |

Click to Save Answer & Move to Next Question

By Maha Rana

Post-Assessment

Question # 1 of 3

Time Left: 78 sec(s)

Which of the following ERD model was developed to reflect the properties and constraints of the complex systems.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------------------|
| <input checked="" type="radio"/> | Extended Entity Relationship Diagram |
| <input type="radio"/> | External Entity Relationship Diagram |
| <input type="radio"/> | Extreme Entity Relationship Diagram |
| <input type="radio"/> | Extra Entity Relationship Diagram |

Click to Save Answer & Move to Next Question

May Allah grant you success, ease your efforts, and bless you with wisdom and perseverance. Keep your faith strong, for with prayer, every challenge becomes an opportunity. I hope this file helps you a lot, and please remember me in your prayers.

Best wishes for Finals!

Maha 😊