

## CS403 DBMS

Question No: 1 ( Marks: 1 ) - Please choose one

Making a change to the conceptual schema of a database but not affecting the existing external schemas is an example of

- ? Physical data independence.
- ? Concurrency control.
- ? Logical data independence.
- ? Functional dependency

Question No: 2 ( Marks: 1 ) - Please choose one

GRANT SELECT, UPDATE(Designation) ON Employee TO Amali,Hiruni WITH GRANT OPTION;

What does this SQL statement do?

- ? Grant permission to Amali,only to retrieve data from Employee table and grant permission to Hiruni, only to update the designation from Employee table.
- ? Grant permission to Hiruni in order to grant, select and update permission to Amali.
- ? Grant permission to Amali & Hiruni to update designation of employees in the Employee table.
- ? Grant permission to Amali and Hiruni to update all data except designation in Employee table.

Question No: 3 ( Marks: 1 ) - Please choose one

Which key word is available in SQL to enforce referential integrity?

- ? Check
- ? Primary Key
- ? Set Default
- ? Unique

Question No: 4 ( Marks: 1 ) - Please choose one

Which of the following statements are Data Definition Language command?

- ? INSERT

- ? UPDATE
- ? GRANT
- ? TRUNCATE

Question No: 5 ( Marks: 1 ) - Please choose one

How many clustered index(es) do each database table have?

- ? 2
- ? 3
- ? 5
- ? 1

Question No: 6 ( Marks: 1 ) - Please choose one

Which of the following is true about DELETE command?

- ? is DDL Command.
- ? Resets identity of the table.
- ? cannot activate a trigger.
- ? Can be Rolled back.

Question No: 7 ( Marks: 1 ) - Please choose one

Which of the following will be deleted relating to a table if you use TRUNCATE command?

- ? all rows in a table
- ? indexes
- ? table structure and its columns
- ? constraints

Question No: 8 ( Marks: 1 ) - Please choose one

Which of the following is not true about De-normalization?

- ? It is the process of attempting to optimize the performance of a database
- ? De-normalization is a technique to move from lower to higher normal forms of database modeling
- ? In de-normalization it is required to add redundant data.
- ? It enhances the performance of DB

Question No: 9 ( Marks: 1 ) - Please choose one

Which of the following is not a feature of TRANSACTION?

- ? Users should be able to regard the execution of each transaction as atomic.
- ? Each transaction, run by itself.
- ? must preserve the consistency of the database
- ? dependant on other concurrent transactions

Question No: 10 ( Marks: 1 ) - Please choose one

Which of the following gives all the fields from employee table named as EMP?

- ? select \* from EMP;
- ? select emp\* from EMP'
- ? select emp\_id where EMP;
- ? select \* where EMP;

Question No: 11 ( Marks: 1 ) - Please choose one

Suppose there are 4 fields in a table named CUST (customer\_id, first\_name, last\_name, phone). Which of the following gives all the information of the customers in the table whose last name is ALI?

- ? SELECT \* FROM CUST WHERE last\_name='ALI';
- ? SELECT \* FROM CUST WHERE last\_name=ALI;
- ? SELECT \* FROM CUSTOMER WHERE name=ALI;
- ? SELECT \* FROM CUSTOMER WHERE last\_name=ALI;

Question No: 12 ( Marks: 1 ) - Please choose one

Identify the correct statement with respect to normalization.

- ? Normalization is a formal technique that can be used only at the starting phase of the database design.
- ? Normalization can be used as a top-down standalone database design technique.
- ? The process of normalization through decomposition must achieve the lossless join property at any cost whereas the dependency reservation property is sometimes sacrificed.
- ? The process of normalization through decomposition must achieve the dependency reservation property at any cost whereas the lossless join property is sometimes sacrificed.

Question No: 13 ( Marks: 1 ) - Please choose one

Which of the following is not true with respect to denormalization?

- ? A denormalized data model is not the same as a data model that has not been normalized

- ? Denormalization takes place before the normalization process
- ? It is an attempt to optimize the performance of database
- ? Denormalization process can not be initiated before the Database design

Question No: 14 ( Marks: 1 ) - Please choose one

Which of the following is incorrect with respect to indexed sequential files?

- ? New records are added to an overflow file
- ? Record in main file that precedes it is updated to contain a pointer to the new record
- ? The overflow is merged with the main file during a batch update
- ? Multiple indexes for the same key field cannot be setup

Question No: 15 ( Marks: 1 ) - Please choose one

Which of the following types of partitioning reduces the chances of unbalanced partitions?

- ? vertical
- ? List
- ? Hash
- ? Range

Question No: 16 ( Marks: 1 ) - Please choose one

DML commands are used for:

- ? inserting data into databases
- ? creating databases
- ? destroying databases
- ? creating DB objects

Question No: 17 ( Marks: 1 ) - Please choose one

Which of the following is INCORRECT with respect to file systems?

- ? At the physical level, pointer or hashed address scheme may be employed to provide a certain degree of data independence at the user level.
- ? A logical record is concerned with efficient storage of information in the secondary storage devices.
- ? Some physical organisations use pointers to record blocks to locate records on disk.
- ? The efficiency of a file system depends on how efficiently operations such as retrieve, insert, update, delete may be performed on the information stored in the file.

Question No: 18 ( Marks: 1 ) - Please choose one

Which of the following is correct regarding Dataflow diagram?

- ? Single DFD is required to represent a system

- ? The dataflow must be bidirectional
- ? Created at increasing levels of detail
- ? Used to represent the relationships among the external entities

Question No: 19 ( Marks: 1 ) - Please choose one

Select the correct statement among the following on proper naming of schema constructs:

- ? Entity type name applies to all the entities belonging to that entity type and therefore a plural name is selected for entity type.
- ? In the narrative description of the database requirements, verbs tend to indicate the names of relationship types.
- ? The nouns arising from a database requirement description can be considered as names of attributes.
- ? Additional nouns which are appearing in the narrative description of the database requirements represent the weak entity type names.

Question No: 20 ( Marks: 1 ) - Please choose one

Structural constraints of a relationship type refer to

- ? identifying the owner entity type relevant to a given entity type
- ? whether the existence of an entity depends on it being related to another entity via the relationship type.
- ? the role that a participating entity from the entity type plays in each relationship instance.
- ? the constraints applicable in granting access to tables, columns and views in a database schema.

Question No: 21 ( Marks: 1 ) - Please choose one

Identify the correct statement.

- ? Entity integrity constraints specify that primary key values can be composite.
- ? Entity integrity constraints are specified on individual relations.
- ? Entity integrity constraints are specified between weak entities.

? When entity integrity rules are enforced, a tuple in one relation that refers to another relation must refer to an existing tuple.

Question No: 22 ( Marks: 1 ) - Please choose one

What is the impact of setting multiple indexes for the same key, in index sequential files?

- ? Multiple indexes for the same key can not be set
- ? It increases efficiency
- ? It decreases efficiency
- ? It will increase complexity as the access time will be increased

Question No: 23 ( Marks: 1 ) - Please choose one

Which of the following is not true regarding Indexes?

- ? Index can be defined even when there is no data in the table
- ? It support Range selections
- ? It can be created using 'Create Index' statement
- ? It can not be created on composite attributes

Question No: 24 ( Marks: 1 ) - Please choose one

While recovering data, which of the following files does a recovery manager examines at first?

- ? A system file
- ? Log file
- ? Data dictionary
- ? Metadata

Question No: 25 ( Marks: 1 ) - Please choose one

The main memory of a computer system is also known as

- ? ROM
- ? RAM

? PROM

? Hard disk

Question No: 26 ( Marks: 1 ) - Please choose one

\_\_\_\_\_ is a control that enables users to select one option from an associated list; users can also type an option.

? Combo box

? Button

? Text box

? Static area

Question No: 27 ( Marks: 1 ) - Please choose one

\_\_\_\_\_ records data by burning microscopic holes in the surface of the disk with a laser.

? Hard disk

? RAM

? Optical disk

? Floppy disk

Question No: 28 ( Marks: 1 ) - Please choose one

Which of following is NOT generally the aim of data partitioning and placement of data?

? Reduce Workload

? Balance Workload

? Merging different relations

? Speed up rate of useful works.

Question No: 29 ( Marks: 1 ) - Please choose one

ALTER TABLE exams

RENAME COLUMN Q\_description TO Question\_Descp, Std\_ID to Student\_ID.

Syntax of ALTER TABLE is NOT correct.

? True

? False

Question No: 30 ( Marks: 1 ) - Please choose one

Which of the following is true regarding Index?

- ? Index can only be created for a single table in database
- ? Index can maximum be created for two tables in database
- ? Index should be created for every table in the database
- ? Index can be created for every table in the database

Question No: 31 ( Marks: 1 )

What is procedural DML?

Question No: 32 ( Marks: 1 )

What does RAM stand for?

Question No: 33 ( Marks: 2 )

Which DML statement changes the values of one or more columns based on some conditions.

Question No: 34 ( Marks: 2 )

Name the two primary modes for taking Locks.

Question No: 35 ( Marks: 3 )

Give three reasons of partitioning in the process of denormalization.

Question No: 36 ( Marks: 3 )

Write any three factors which we consider while defining key in designing an indexed sequential file?

Question No: 37 ( Marks: 3 )

Create a unique index named ' IndexNum' on the 'CustName' column of the table 'Customer'.

Question No: 38 ( Marks: 5 )

Write a query to change the "status" field in the table "name\_table" against the phone 34657. Make the status as enable.

Question No: 39 ( Marks: 5 )

Describe ATOMICITY as one of the properties of TRANSACTION.

Question No: 40 ( Marks: 10 )



Explain the main components of an Index. Explain the basic features of the two types of indexes (Ordered Index and Hash Index).

Question No: 41 ( Marks: 10 )

Make the following comparison among the indexes

- Clustered vs. Un-clustered Indexes
- Single Key vs. Composite Indexes with examples