Started on	Friday, January 21, 2022, 10:00 PM
State	Finished
Completed on	Friday, January 21, 2022, 10:22 PM
Time taken	21 mins 49 secs
Grade	**13.00** out of 16.00 (**81**%)

Question 1

Correct

1.00 points out of 1.00

The two-tier architecture of database applications is more appropriate for large applications, and for applications that run on the World Wide Web. Choose True/False.

Select one:

○ True

◉ False ✔

The correct answer is 'False'.

Question 2

Incorrect

0.00 points out of 1.00

Match the following with respect to Database users.

Specialized users | Use a database query language ⇕ | ✖

Sophisticated users | Write specialized database applications ⇕ | ✖

Your answer is incorrect.

The correct answer is: Specialized users → Write specialized database applications, Sophisticated users → Use a database query language

Question 3

Correct

1.00 points out of 1.00

Which of the following is not a function of Database Administrator?

Select one:

◉ a. Submit queries to explore data in the database ✔

○ b. Routine maintenance

○ c. Schema and physical-organization modification

○ d. Storage structure and access-method definition

Your answer is correct.

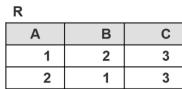The correct answer is: Submit queries to explore data in the database

Question 4

Correct

1.00 points out of 1.00

Given a schema **human**(male, female, child), and their domain:
- male = {John, Bob}
- female = {Catherine, Fiona}
- child = {Amy, Tom, Jerry}

Compute the cardinality the schema **human**:

Answer: 12   ✔

The correct answer is: 12

Question 5

Correct

1.00 points out of 1.00

Naive users (tellers, agents, web users) use _____ to access the functionality of underlying Database System.

Select one:
- ⦿ a. Application interfaces ✔
- ◯ b. Application programs
- ◯ c. Administration tools
- ◯ d. Query tools

Your answer is correct.

The correct answer is: Application interfaces

Question 6

Correct

1.00 points out of 1.00

A relational database developer refers to a record as

Select one:
- ◯ a. relation
- ◯ b. attribute
- ⦿ c. tuple ✔
- ◯ d. schema

Your answer is correct.

The correct answer is: tuple

Question 7

Correct

1.00 points out
of 1.00

There are two schema R and S:

- R(A:int,B:int,C:int), A is the primary key of R
- S(D:int, A:int), D is the primary key of S, A is a foreign key of S which is referencing R.A.

According to the following two relations, find the tuple in S that violates referential integrity.

R

A	B	C
1	2	3
2	1	3

S

D	A
1	2
2	NULL
3	3
4	1

Select one:

○ a. (1 2)

○ b. (2 NULL)

○ c. (4 1)

◉ d. (3 3) ✔

Your answer is correct.

The correct answer is: (3 3)

Question 8

Incorrect

0.00 points out
of 1.00

According to schemas Patient and Treatment given below, find the foreign key of schema **Treatment**.

•Patient(pID, pName, gender, birthDate), Primary key is pID.
•Treatment(pID, pName, doctorID, doctorName, date)

Answer: pID, pName   ✖

The correct answer is: pID

Question 9

Correct

1.00 points out
of 1.00

Select the responsibilities of a general purpose database-management system.

Select one or more:

☑ a. Security enforcement ✔

☑ b. Backup and recovery ✔

☑ c. Integrity enforcement ✔

☑ d. Concurrency Control ✔

☑ e. Interaction with the file manager ✔

Your answer is correct.

The correct answers are: Interaction with the file manager, Integrity enforcement, Security enforcement, Backup and recovery, Concurrency Control

Question **10**

Correct

1.00 points out of 1.00

There are three different types of schema in the database and these are defined according to the levels of abstraction of the three-level architecture.

At the highest level, we have multiple external schemas ✔ that correspond to different views of the data.

At the conceptual level, we have the conceptual schema ✔ , which describes all the entities, attributes, and relationships together with integrity constraints.

At the lowest level of abstraction, we have the internal schema ✔ , which is a complete description of the internal model, containing the definitions of stored records, the methods of representation, the data fields, and the indexes and storage structures used.

Your answer is correct.

The correct answer is:
There are three different types of schema in the database and these are defined according to the levels of abstraction of the three-level architecture.

At the highest level, we have multiple [external schemas] that correspond to different views of the data.

At the conceptual level, we have the [conceptual schema], which describes all the entities, attributes, and relationships together with integrity constraints.

At the lowest level of abstraction, we have the [internal schema], which is a complete description of the internal model, containing the definitions of stored records, the methods of representation, the data fields, and the indexes and storage structures used.

Question **11**

Correct

1.00 points out of 1.00

Schemas Member and Team are given below:

1. Team(teamID, teamName, leader)
   - Primary key: teamID
2. Member(mID, mName, teamID)
   - Primary key: mID
   - Foreign key: teamID referencing to Team.teamID
   - Domain(mID)={1,000,000 ..1,100,000}

For a relation of Team = {   <10, R&D, Jack>,
                                          <20, Sales, 'May'> }

Choose the valid tuple in relation Member.

Select one:
- a.
  <1,101,010   'Dan'   10>
- b.
  <null   'Justin'   20>
- c.
  <1,000,102   'Charles'   50>
- d.
  <1,000,101   Null   10> ✔

Your answer is correct.

The correct answer is:
<1,000,101   Null   10>

Question **12**

Correct

1.00 points out of 1.00

Database System is the short name of Database Management System.

Select one:

○ True

◉ False ✔

The correct answer is 'False'.

Question **13**

Correct

1.00 points out of 1.00

Given schema R(A:int, B:int, C:int), primary key is A.

Which relation **doesn't** violate integrity.

A.

A	B	C
1	2	3
1	3	5

C.

A	B	C
1	2	3
2	2.1	3

B.

A	B	C
1	2	3
null	1	3

D.

A	B	C
1	2	3
2	1	null

Select one:

◉ a. D ✔

○ b. B

○ c. C

○ d. A

Your answer is correct.

The correct answer is: D

Question **14**

Correct

1.00 points out of 1.00

Data model is the structure of schema, and schema is the structure of relation.

Select one:

◉ True ✔

○ False

The correct answer is 'True'.

Question **15**

Correct

1.00 points out of 1.00

In a two-tier application architecture, application code running on the client's machine communicates with an application server at the server, and never directly communicates with the database.

Choose True/False.

Select one:

○ True

◉ False ✔

The correct answer is 'False'.

Question **16**

Incorrect

0.00 points out of 1.00

The type of data independence in which the schema can be altered on conceptual level without altering external is classified as:

Select one:

- ○ a. physical data independence ✖
- ○ b. logical data independence
- ○ c. external level independence
- ○ d. conceptual level independence

Your answer is incorrect.

The correct answer is: logical data independence

◄ Announcements

Jump to...

Attendance cs211s22-a.sg Wednesday 01/12/2022 4:00pm-5:40pm ►