Exam Code: 1D0-541

Exam Name: CIW v5 Database Design Specialist

Vendor: CIW

Version: DEMO

Part: A

1: Consider the following relations shown in the exhibit. Which of the following SQL statements would return the Customers2 relation from the Customers relation?

Cust_No	Cust_Name	Satisfaction_Rate	Sales_Office	Sales_Rep_No
1011	MicroWidget	75	Atlanta	1350
1012	MacroWidget	90	New York	7403
1013	Xyz Corp	78	Los Angeles	2457
1014	DayCo	95	Atlanta	1350
1015	DigiTech	85	Chicago	3303
1016	DataTech	92	Los Angeles	2457
1017	UniSort	81	New York	7403

Customers Relation

1015	DigiTech	85	Chicago	3303
1017	UniSort	81	New York	7403

Customers2 Relation

A.SELECT *
FROM Customers
WHERE Satisfaction_Rate <= 80
OR Satisfaction_Rate >= 90;
B.SELECT *
FROM Customers
WHERE Satisfaction_Rate IN (80 AND 90);
C.SELECT *
FROM Customers
WHERE Satisfaction_Rate >= 80
AND Satisfaction_Rate <= 89;
D.SELECT *
FROM Customers
WHERE Satisfaction_Rate
BETWEEN (80, 90);
Correct Answers: C

2: What is the highest normal form of the relation(s) shown in the exhibit?

Cust_No	Cust_Name	Sales_Rep_No
011	MicroWidget	1350
012	MacroWidget	7403
013	Xyz Corp	2457
014	DayCo	8957

Customer Relation

Sales_Rep_Name	Sales_Rep_No
Jane Lee	1350
Henry Butler	7403
Corey Harris	2457
Elena Perez	8957

Sales_Rep Relation

A.No normal form

B.Second normal form

C.First normal form

D.Third normal form

Correct Answers: D

3: Your company must choose which type of database to use for a new project. Which of the following lists three characteristics of file-based database systems?

A.Repetition of data, application program flexibility, and data centralization

B.Incompatibility of files, tabular data structures, and data dependence

C.Separation of data, repetition of data, and data independence

D.Application program inflexibility, data dependence, and separation of data

Correct Answers: D

5: Which statement best describes a procedural data manipulation language command?

A.It contains a query language for retrieving data.

B.It can be used only to manipulate data through a SQL interface.

C.The user is not required to know how the underlying data structures are implemented.

D.It requires that the user know how the underlying data structures are implemented.

Correct Answers: D

6: Consider the Recreation relation shown in the exhibit. You need to apply a SQL statement to the Recreation relation that will return the following data:

Student_ID	Activity	Activity_Fee
1001	Bowling	50
1001	Racquetball	75
1002	Bowling	50
1003	Handball	35
1003	Racquetball	75
1004	Bowling	50
1004	Fencing	125

Recreation Relation

Bowling
Fencing
Handball
Racquetball

Which SQL statement applied to the Recreation relation will return this data?

A.SELECT Activity FROM Recreation;

B.SELECT DISTINCT Activity FROM Recreation;

C.SELECT Activity FROM Recreation
WHERE NOT LIKE Activity;

D.SELECT Activity FROM Recreation
WHERE DISTINCT Activity;

Correct Answers: B

7: Consider the following database information:

domain   s_id: integer

domain   grd: fixed length character string length 1

STUDENT_GRADE(

Student_Number: s_id NOT NULL

Grade: grd)

Primary Key Student_Number

During which phase of the database design process would this information be developed?

A.Logical

B.Physical

C.Conceptual

D.Implementation

Correct Answers: A

8: In a relational database, which term describes a single table consisting of rows and columns?

A.Entity

B.Matrix

C.Relation

D.Data dictionary

Correct Answers: C

9: Which pair of relational algebraic operations requires union compatibility?

A.Projection and Cartesian product

B.Selection and projection

C.Intersection and difference

D.Cartesian product and intersection

Correct Answers: C

10: What is the highest normal form of the relation(s) shown in the exhibit?

Registration_ID	Student_ID	Course_Code	First_Name	Last_Name
1001	S320	M3455	Teri	Chan
1002	S255	M3455	Carlos	Trujillo
1003	S511	A4343	Helen	Yang
1004	S812	S4511	Robert	Cray
1005	S320	A4343	Teri	Chan
1006	S255	M4422	Carlos	Trujillo
1007	S511	M4433	Helen	Yang
1008	S812	S2212	Robert	Cray

Registration Relation

A.Second normal form

B.First normal form

C.Boyce-Codd normal form

D.Third normal form

Correct Answers: A

11: Which relational algebraic operation is used to select specific columns (attributes) from a relation?

A.Union

B.Difference

C.Projection

D.Intersection

Correct Answers: C

12: Your enterprise has created a database and database application. The testing phase for the project has started. Which of the following best describes white-box testing of the projects software?

A.The database designer tests the software because he or she is able to make necessary changes to the underlying code for the software.

B.A user who has no knowledge of the softwares underlying code tests the software.

C.Someone other than the database designer tests the software. This person has no access to the underlying code and attempts to use the

software only in ways not considered by the software designers.

D.A person tests the software and submits suggestions to the software's underlying code. This person is someone other than the database

designer, but has access to the softwares underlying code.
Correct Answers: D

13: Which security technique limits access by unauthorized users to parts of an enterprise database?
A.Views
B.Concurrency
C.Locking
D.Integrity controls
Correct Answers: A

14: Which of the following ACID properties requires that a transaction be executed in its entirety or not all?
A.Durability
B.Consistency
C.Isolation
D.Atomicity
Correct Answers: D

15: Consider the relations shown in the exhibit. Which of the following SQL statements would enter data from the Customers relation into the Atlanta_Customers relation?
A.INSERT INTO Atlanta_Customers
VALUES(
SELECT *
FROM Customer s
WHERE Sales_Office = Atlanta);
B.INSERT INTO Atlanta_Customers
SELECT *
FROM Customers
WHERE Sales_Office = Atlanta;
C.INSERT INTO Atlanta_Customers
SELECT Cust_No, Cust_Name, Satisfaction_Rate, Sales_Rep_No
FROM Customers
WHERE Sales_Office = Atlanta;
D.INSERT INTO Atlanta_Customers
SELECT Cust_No, Cust_Name, Sales_Office, Sales_Rep_No
FROM Customers
WHERE Sales_Office = Atlanta;
Correct Answers: C

16: Which statement is used to define a named group of related tables, views, domains and other database objects?
A.CREATE ENTITY
B.CREATE INDEX

C.CREATE DOMAIN

D.CREATE SCHEMA

Correct Answers: D

17: To create a view, what are the minimal privileges that a user must have for the relations used to make the view?

A.GRANT

B.REVOKE

C.SELECT

D.CREATE VIEW

Correct Answers: C

18: Consider the relation shown in the exhibit. Which of the following SQL statements would return a relation that excludes all customers with a Satisfaction_Rate of less than or equal to 80 unless the Sales_Office is located in Atlanta?

A.SELECT *

FROM Customers

WHERE Satisfaction_Rate > 80

OR Sales_Office = Atlanta;

B.SELECT *

FROM Customers

WHERE Satisfaction_Rate <= 80

AND Sales_Office = Atlanta;

C.SELECT *

FROM Customers

WHERE Satisfaction_Rate >= 80;

D.SELECT *

FROM Customers

WHERE Satisfaction_Rate >= 80

AND NOT Sales_Office = Atlanta;

Correct Answers: A

19: Consider the Information Engineering diagram shown in the exhibit for a building management company. Referential integrity must be maintained such that a building cannot be deleted when it has residents. Building_ID, R_ID, Room_Count and Room_Num are integer numbers, whereas Bldg_Name, Location and Res_Name are all represented by variable-length strings with a maximum of 20 characters. Which SQL statement best implements the relations shown in this diagram?

A.CREATE TABLE BUILDING (

Building_ID INTEGER NOT NULL PRIMARY KEY,

Bldg_Name VARCHAR (20),

Location VARCHAR (20),

Room_Count INTEGER   );

CREATE TABLE RESIDENT (

R_ID NOT NULL PRIMARY KEY,

Room_Num INTEGER,

Res_Name VARCHAR (20),

Building_ID INTEGER NOT NULL,

FOREIGN KEY Building_ID REFERENCES RESIDENT (Building_ID)

ON DELETE NO CHECK);

B.CREATE TABLE BUILDING (

Building_ID INTEGER NOT NULL PRIMARY KEY,

Bldg_Name VARCHAR (20),

Location VARCHAR (20),

Room_Count INTEGER   );

CREATE TABLE RESIDENT (

R_ID NOT NULL PRIMARY KEY,

Room_Num INTEGER,

Res_Name VARCHAR (20),

Building_ID INTEGER NOT NULL,

FOREIGN KEY Building_ID REFERENCES BUILDING (Building_ID)

ON DELETE NO CHECK

ON UPDATE CASCADE);

C.CREATE TABLE BUILDING (

Building_ID INTEGER NOT NULL PRIMARY KEY,

Bldg_Name VARCHAR (20),

Location VARCHAR (20),

Room_Count INTEGER   );

CREATE TABLE RESIDENT (

R_ID NOT NULL PRIMARY KEY,

Room_Num INTEGER,

Res_Name VARCHAR (20),

Building_ID INTEGER NOT NULL,

FOREIGN KEY Building_ID REFERENCES BUILDING (Building_ID)

ON DELETE NO CHECK

ON UPDATE CASCADE);

D.CREATE TABLE BUILDING (

Building_ID INTEGER NOT NULL PRIMARY KEY,

Bldg_Name VARCHAR (20),

Location VARCHAR (20),

Room_Count INTEGER   );

CREATE TABLE RESIDENT (

R_ID NOT NULL PRIMARY KEY,

Room_Num INTEGER,

Res_Name VARCHAR (20),

Building_ID INTEGER NOT NULL,

FOREIGN KEY Building_ID REFERENCES BUILDING (Building_ID)

ON DELETE NO CHECK

ON UPDATE CASCADE);
Correct Answers: C

20: Consider the relational database shown in the exhibit. What is the foreign key in this database?
A.Employee.Dept_ID
B.Dept_Mngr
C.Dept_Name
D.Department.Dept_ID
Correct Answers: A