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?

![Customers Relation](image1)

![Customers2 Relation](image2)

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?
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:
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:

<table>
<thead>
<tr>
<th>Student_ID</th>
<th>Activity</th>
<th>Activity_Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>Bowling</td>
<td>50</td>
</tr>
<tr>
<td>1001</td>
<td>Racquetball</td>
<td>75</td>
</tr>
<tr>
<td>1002</td>
<td>Bowling</td>
<td>50</td>
</tr>
<tr>
<td>1003</td>
<td>Handball</td>
<td>35</td>
</tr>
<tr>
<td>1003</td>
<td>Racquetball</td>
<td>75</td>
</tr>
<tr>
<td>1004</td>
<td>Bowling</td>
<td>50</td>
</tr>
<tr>
<td>1004</td>
<td>Fencing</td>
<td>125</td>
</tr>
</tbody>
</table>

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

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?

<table>
<thead>
<tr>
<th>Registration_ID</th>
<th>Student_ID</th>
<th>Course_Code</th>
<th>First_Name</th>
<th>Last_Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>S320</td>
<td>M3455</td>
<td>Teri</td>
<td>Chan</td>
</tr>
<tr>
<td>1002</td>
<td>S255</td>
<td>M3455</td>
<td>Carlos</td>
<td>Trujillo</td>
</tr>
<tr>
<td>1003</td>
<td>S511</td>
<td>A4343</td>
<td>Helen</td>
<td>Yang</td>
</tr>
<tr>
<td>1004</td>
<td>S812</td>
<td>S4511</td>
<td>Robert</td>
<td>Cray</td>
</tr>
<tr>
<td>1005</td>
<td>S320</td>
<td>A4343</td>
<td>Teri</td>
<td>Chan</td>
</tr>
<tr>
<td>1006</td>
<td>S255</td>
<td>M4422</td>
<td>Carlos</td>
<td>Trujillo</td>
</tr>
<tr>
<td>1007</td>
<td>S511</td>
<td>M4433</td>
<td>Helen</td>
<td>Yang</td>
</tr>
<tr>
<td>1008</td>
<td>S812</td>
<td>S2212</td>
<td>Robert</td>
<td>Cray</td>
</tr>
</tbody>
</table>

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 project's 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.
Correct Answers: D
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 Customers
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
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