1. The normal form which satisfies multivalued dependencies and which is in BCNF is  
a) 4 NF  
b) 3 NF  
c) 2 NF  
d) All of the mentioned

Answer: a  
Explanation: Fourth normal form is more restrictive than BCNF.

2. Which of the following is a tuple-generating dependencies?  
a) Functional dependency  
b) Equality-generating dependencies  
c) Multivalued dependencies  
d) Non-functional dependency

Answer: c  
Explanation: Multivalued dependencies, do not rule out the existence of certain tuples. Instead, they require that other tuples of a certain form be present in the relation.

3. The main task carried out in the \_\_\_\_\_\_\_\_\_\_ is to remove repeating attributes to separate tables.  
a) First Normal Form  
b) Second Normal Form  
c) Third Normal Form  
d) Fourth Normal Form

Answer: a  
Explanation: Multivalued dependencies, do not rule out the existence of certain tuples. Instead, they require that other tuples of a certain form be present in the relation.

4. Which of the normal form is based on multivalued dependencies?  
a) First  
b) Second  
c) Third  
d) Fourth

Answer: d  
Explanation: Multivalued dependencies, do not rule out the existence of certain tuples. Instead, they require that other tuples of a certain form be present in the relation.

5. Which forms has a relation that possesses data about an individual entity?  
a) 2NF  
b) 3NF  
c) 4NF  
d) 5NF

Answer: c  
Explanation: A Table is in 4NF if and only if, for every one of its non-trivial multivalued dependencies X \twoheadrightarrow Y, X is a superkey—that is, X is either a candidate key or a superset thereof.

6. If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from one of the following sources.  
a) A many-to-many relationship set  
b) A multivalued attribute of an entity set  
c) A one-to-many relationship set  
d) Both A many-to-many relationship set and A multivalued attribute of an entity set

Answer: d  
Explanation: For a many-to-many relationship set each related entity set has its own schema and there is an additional schema for the relationship set. For a multivalued attribute, a separate schema is created consisting of that attribute and the primary key of the entity set.

7. Which of the following has each related entity set has its own schema and there is an additional schema for the relationship set?  
a) A many-to-many relationship set  
b) A multivalued attribute of an entity set  
c) A one-to-many relationship set  
d) None of the mentioned

Answer: a  
Explanation: If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from this source.

8. In which of the following, a separate schema is created consisting of that attribute and the primary key of the entity set.  
a) A many-to-many relationship set  
b) A multivalued attribute of an entity set  
c) A one-to-many relationship set  
d) None of the mentioned

Answer: b  
Explanation: If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from this source.

9. Fifth Normal form is concerned with  
a) Functional dependency  
b) Multivalued dependency  
c) Join dependency  
d) Domain-key

Answer: c  
Explanation: If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from this source.

10. In 2NF  
a) No functional dependencies (FDs) exist  
b) No multivalued dependencies (MVDs) exist  
c) No partial FDs exist  
d) No partial MVDs exist

Answer: c  
Explanation: If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from this source.