1. Which of the following gives a logical structure of the database graphically?  
   a) Entity-relationship diagram  
   b) Entity diagram  
   c) Database diagram  
   d) Architectural representation

Answer: a  
Explanation: E-R diagrams are simple and clear—qualities that may well account in large part for the widespread use of the E-R model.

1. The entity relationship set is represented in E-R diagram as  
   a) Double diamonds  
   b) Undivided rectangles  
   c) Dashed lines  
   d) Diamond

Answer: d  
Explanation: Dashed lines link attributes of a relationship set to the relationship set.

1. The Rectangles divided into two parts represents  
   a) Entity set  
   b) Relationship set  
   c) Attributes of a relationship set  
   d) Primary key

Answer: a  
Explanation: The first part of the rectangle, contains the name of the entity set. The second part contains the names of all the attributes of the entity set.

1. Consider a directed line(->) from the relationship set advisor to both entity sets instructor and student. This indicates \_\_\_\_\_\_\_\_\_ cardinality  
   a) One to many  
   b) One to one  
   c) Many to many  
   d) Many to one

Answer: b  
Explanation: This indicates that an instructor may advise at most one student, and a student may have at most one advisor.

1. We indicate roles in E-R diagrams by labeling the lines that connect \_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_  
   a) Diamond , diamond  
   b) Rectangle, diamond  
   c) Rectangle, rectangle  
   d) Diamond, rectangle

Answer: d  
Explanation: Diamond represents a relationship set and rectangle represents a entity set.

1. An entity set that does not have sufficient attributes to form a primary key is termed a \_\_\_\_\_\_\_\_\_\_  
   a) Strong entity set  
   b) Variant set  
   c) Weak entity set  
   d) Variable set

Answer: c  
Explanation: An entity set that has a primary key is termed a strong entity set.

1. For a weak entity set to be meaningful, it must be associated with another entity set, called the  
   a) Identifying set  
   b) Owner set  
   c) Neighbour set  
   d) Strong entity set

Answer: a  
Explanation: Every weak entity must be associated with an identifying entity; that is, the weak entity set is said to be existence dependent on the identifying entity set. The identifying entity set is said to own the weak entity set that it identifies. It is also called as owner entity set.

1. Weak entity set is represented as  
   a) Underline  
   b) Double line  
   c) Double diamond  
   d) Double rectangle

Answer: c  
Explanation: An entity set that has a primary key is termed a strong entity set.

1. If you were collecting and storing information about your music collection, an album would be considered a(n) \_\_\_\_\_  
   a) Relation  
   b) Entity  
   c) Instance  
   d) Attribute

Answer: b  
Explanation: An entity set is a logical container for instances of an entity type and instances of any type derived from that entity type.

1. What term is used to refer to a specific record in your music database; for instance; information stored about a specific album?  
   a) Relation  
   b) Instance  
   c) Table  
   d) Column

Answer: b  
Explanation: The environment of database is said to be an instance. A database instance or an ‘instance’ is made up of the background processes needed by the database.