***Database Principles* EMEA 3rd Edition**

**Chapter 2: Data Models**

**True or False**

1. A data model is usually graphical.

ANS: T

Rejoinder: 2.1 The Importance of Data Models

2. The terms data model and database model are often used interchangeably.

ANS: T

Rejoinder: 2.1 The Importance of Data Models

3. Database designers determine the data and information that yield the required understanding of the entire business.

ANS: F

Rejoinder: 2.3 Business Rules

4. Business rules apply to businesses and government groups, but not to other types of organisations such as religious groups or research laboratories.

ANS: F

Rejoinder: 2.3 Business Rules

5. Business rules must be rendered in writing.

ANS: T

Rejoinder: 2.3 Business Rules

6. In an SQL-based relational database, each table is dependent on another.

ANS: F

Rejoinder: 2.4.2 The Relational Model

7. \*:\* relationships are not appropriate in a relational model.

ANS: T

Rejoinder: 2.4.2 The Relational Model

8. The hierarchical model is software-independent.

ANS: F

Rejoinder: 2.4.1 Hierarchical and Network Models

9. Each table in a RDBMS is a matrix.

ANS: T

Rejoinder: 2.4.2 The Relational Model

10. The external model is the end users’ view of the data environment.

ANS: T

Rejoinder: 2.5.1 The External model

11. In an object-orientated data model, both data and their relationships are contained in a structure known as an entity.

ANS: F

Rejoinder: 2.4.4 The Object-Orientated (OO) Model

12. Inheritance is the ability of an object within the class hierarchy to inherit the attributes and methods of the classes above it.

ANS: F

Rejoinder: 2.4.4 The Object-Orientated (OO) Model

13. Unstructured, social media data can be stored into a conventional relational structure of rows and columns.

ANS: F

Rejoinder: 2.4.6 Emerging Data Models: Big Data and NoSQL

14. NoSQL is not based on the relational model

ANS: T

Rejoinder: 2.4.7 NoSQL Databases

15. In the key-value data model, each row represents a single entity occurrence.

ANS: F

Rejoinder: 2.4.7 NoSQL Databases

16. NoSQL databases do not store or enforce relationships among entities.

ANS: T

Rejoinder: 2.4.7 NoSQL Databases