



II-I DATABASE MANAGEMENT SYSTEM

25CY305

UNIT-I: Introduction to Database and System Architecture

I. Choose the correct answer:

1. A database is a collection of:

- a) Programs
- b) Related data
- c) Hardware devices
- d) Operating systems

Answer: b) Related data

2. Which of the following is an application of Database Management Systems?

- a) Banking
- b) Railway reservation
- c) Library management
- d) All of the above

Answer: d) All of the above

3. In a traditional file system, data redundancy is:

- a) Eliminated
- b) Minimized
- c) High
- d) Not possible

Answer: c) High

4. The main advantage of DBMS over file systems is:

- a) Increased redundancy
- b) Data independence
- c) Slower processing
- d) Complex access

Answer: b) Data independence

5. The physical level of data abstraction describes:

- a) How users see data
- b) Entire database structure
- c) How data is stored in storage devices



d) Application programs

Answer: c) How data is stored in storage devices

6. Which level of data abstraction is closest to the users?

a) Physical level

b) Logical level

c) View level

d) Internal level

Answer: c) View level

7. A data model is used to:

a) Store data physically

b) Describe database structure

c) Design operating systems

d) Create hardware devices

Answer: b) Describe database structure

8. Which of the following is a data model?

a) Relational model

b) ER model

c) Network model

d) All of the above

Answer: d) All of the above

9. Who is responsible for defining the database schema?

a) End user

b) Database Administrator

c) Programmer

d) Operator

Answer: b) Database Administrator

10. The person responsible for database security is:

a) End user

b) DBA

c) Clerk

d) Data entry operator

Answer: b) DBA

11. An entity represents:



- a) Relationship between attributes
- b) A real-world object
- c) A database table only
- d) A report

Answer: b) A real-world object

12. A collection of similar entities is called:

- a) Attribute set
- b) Entity set
- c) Relationship set
- d) View set

Answer: b) Entity set

13. Which symbol is used to represent an entity in an ER diagram?

- a) Rectangle
- b) Oval
- c) Diamond
- d) Triangle

Answer: a) Rectangle

14. Attributes in ER diagrams are represented by:

- a) Rectangle
- b) Circle/Oval
- c) Diamond
- d) Square

Answer: b) Circle/Oval

15. Relationships in ER diagrams are represented by:

- a) Rectangle
- b) Oval
- c) Diamond
- d) Triangle

Answer: c) Diamond

16. Which attribute uniquely identifies an entity?

- a) Composite attribute
- b) Multivalued attribute
- c) Key attribute
- d) Derived attribute

Answer: c) Key attribute



17. A composite attribute can be:

- a) Divided into smaller subparts
- b) Derived from another attribute
- c) Have multiple values
- d) Cannot be divided

Answer: a) Divided into smaller subparts

18. Which of the following is a multivalued attribute?

- a) Age
- b) Name
- c) Phone Numbers
- d) Salary

Answer: c) Phone Numbers

19. Converting an ER model into relational tables is known as:

- a) Physical design
- b) Logical database design
- c) Data abstraction
- d) Data mining

Answer: b) Logical database design

20. Extended ER features include:

- a) Specialization
- b) Generalization
- c) Aggregation
- d) All of the above

Answer: d) All of the above

Fill in the Blanks

1. A _____ is an organized collection of related data.

Answer: Database

2. Banking, library, and reservation systems are examples of _____ applications.

Answer: database

3. In a file system, data _____ is usually high.

Answer: redundancy

4. DBMS provides data _____ from application programs.

Answer: independence

5. The three levels of data abstraction are physical, logical, and _____ levels.

Answer: view



6. The _____ level describes how data is actually stored.
Answer: physical
7. The _____ model represents data using tables.
Answer: relational
8. The person responsible for managing a database is called _____.
Answer: DBA (Database Administrator)
9. An _____ represents a real-world object in the ER model.
Answer: entity
10. A collection of similar entities is called an _____.
Answer: entity set
11. In an ER diagram, entities are represented using _____.
Answer: rectangles
12. Attributes are represented by _____ in an ER diagram.
Answer: ovals
13. Relationships are represented by _____ shapes.
Answer: diamond
14. An attribute that uniquely identifies an entity is called a _____ attribute.
Answer: key
15. A _____ attribute can be divided into smaller components.
Answer: composite
16. A _____ attribute can have more than one value.
Answer: multivalued
17. Specialization and generalization are features of the _____ ER model.
Answer: Extended
18. The process of designing database tables from an ER diagram is called _____.
Answer: logical database design.
19. The overall logical structure of a database is called the database _____.
Answer: schema
20. A relationship among entities is represented by a _____ set.
Answer: relationship



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