



## Department of Computer Science and Engineering

### CS8492 - DATABASE MANAGEMENT SYSTEMS

#### Unit II - MCQ Bank

1. An \_\_\_\_\_ is a set of entities of the same type that share the same properties, or attributes.
- Entity set
  - Attribute set
  - Relation set
  - Entity model

Answer: a

2. Entity is a
- Object of relation
  - Present working model
  - Thing in real world
  - Model of relation

Answer: c

3. The descriptive property possessed by each entity set is
- Entity
  - Attribute
  - Relation
  - Model

Answer: b

4. The function that an entity plays in a relationship is called that entity's
- Participation
  - Position
  - Role
  - Instance

Answer: c

5. The attribute name could be structured as an attribute consisting of first name, middle initial, and last name. This type of attribute is called
- Simple attribute
  - Composite attribute
  - Multivalued attribute
  - Derived attribute

Answer: b

6. The attribute AGE is calculated from DATE\_OF\_BIRTH. The attribute AGE is
- Single valued
  - Multi valued
  - Composite
  - Derived

Answer: d

7. Not applicable condition can be represented in relation entry as
- NA
  - 0
  - NULL
  - Blank Space

Answer: c

8. Which of the following can be a multivalued attribute?
- Phone\_number
  - Name
  - Date\_of\_birth
  - All of the mentioned

Answer: a

9. Which of the following is a single valued attribute
- Register\_number

- b. Address
- c. SUBJECT\_TAKEN
- d. Reference

Answer: a

**10.** In a relation between the entities the type and condition of the relation should be specified. That is called as \_\_\_\_ attribute.

- a. Descriptive
- b. Derived
- c. Recursive
- d. Relative

Answer: a

**11.** \_\_\_\_ express the number of entities to which another entity can be associated via a relationship set.

- a. Mapping Cardinality
- b. Relational Cardinality
- c. Participation Constraints
- d. None of the mentioned

Answer: a

**12.** An entity in A is associated with at most one entity in B, and an entity in B is associated with at most one entity in A. This is called as

- a. One-to-many
- b. One-to-one
- c. Many-to-many
- d. Many-to-one

Answer: b

**13.** An entity in A is associated with at most one entity in B. An entity in B, however, can be associated with any number (zero or more) of entities in A.

- a. One-to-many

- b. One-to-one
- c. Many-to-many
- d. Many-to-one

Answer: d

**14.**Data integrity constraints are used to:

- a. Control who is allowed access to the data
- b. Ensure that duplicate records are not entered into the table
- c. Improve the quality of data entered for a specific property
- d. Prevent users from changing the values stored in the table

Answer: c

**15.**Establishing limits on allowable property values, and specifying a set of acceptable, predefined options that can be assigned to a property are examples of:

- a. Attributes
- b. Data integrity constraints
- c. Method constraints
- d. Referential integrity constraints

Answer: b

**16.** Which one of the following can be treated as a primary key in teaches relation?

- a. Id
- b. Semester
- c. Sec\_id
- d. Year

Answer: a

**17.**The primary key in the section relation is

- a. Course\_id
- b. Sec\_id
- c. Both Course\_id and Sec\_id
- d. All the attributes

Answer: c

**18.** SELECT \* FROM teaches WHERE Sec\_id = 'CS- 101';

Which of the following Id is selected for the following query?

- a. 1003
- b. 1001
- c. None
- d. Error message appears

Answer: d

**19.** SELECT Id, Course\_id, Building FROM SECTION s AND teaches t WHERE t.year=2009;

Which of the following Id are displayed?

- a. 1003
- b. 1001
- c. Both 1003 and 1001
- d. Error message appears

Answer: c

**20.** The query which selects the Course\_id 'CS- 101' from the section relation is

- a. Select Course\_id from section where Building = 'Richard';
- b. Select Course\_id from section where Year = '2009';
- c. Select Course\_id from teaches where Building = 'Packyard';
- d. Select Course\_id from section where Sec\_id = '3';

Answer: b

**21.** The entity set person is classified as student and employee. This process is called

- a. Generalization
- b. Specialization
- c. Inheritance
- d. Constraint generalization

Answer: b

**22.** Which relationship is used to represent a specialization entity?

- a. ISA
- b. AIS
- c. ONIS
- d. WHOIS

Answer: a

**23.** The refinement from an initial entity set into successive levels of entity subgroupings represents a design process in which distinctions are made explicit.

- a. Hierarchy
- b. Bottom-up
- c. Top-down
- d. Radical

Answer: c

**24.** There are similarities between the instructor entity set and the secretary entity set in the sense that they have several attributes that are conceptually the same across the two entity sets: namely, the identifier, name, and salary attributes. This process is called

- a. Commonality
- b. Specialization
- c. Generalization
- d. Similarity

Answer: c

**25.** If an entity set is a lower-level entity set in more than one ISA relationship, then the entity set has

- a. Hierarchy
- b. Multilevel inheritance
- c. Single inheritance
- d. Multiple inheritance

Answer: d

**26.** A domain is \_\_\_\_\_ if elements of the domain are considered to be indivisible units.

- a. Atomic
- b. Subatomic
- c. Substructure
- d. Subset

Answer: a

**27.** Identify the composite attributes

- a. Salary
- b. Credits
- c. Section\_id
- d. None of the mentioned

Answer: d

**28.** Consider the relation given below and find the maximum normal form applicable to them

- I.  $R(A, B)$  WITH productions  $\{ A \twoheadrightarrow B \}$
- II.  $R(A, B)$  WITH productions  $\{ B \twoheadrightarrow A \}$
- III.  $R(A, B)$  WITH productions  $\{ A \rightarrow B, B \twoheadrightarrow A \}$
- IV.  $R(A, B, C)$  WITH productions  $\{ A \twoheadrightarrow B, B \twoheadrightarrow A, AB \twoheadrightarrow C \}$ 
  - a. i, ii and iii are in 3NF and iv is in BCNF
  - b. i and ii are in BCNF and iii and iv are in 3NF
  - c. All are in 3NF
  - d. All are in BCNF

Answer: d

**29.** Which one is based on multi-valued dependency:

- a. First
- b. Second
- c. Third
- d. Fourth

Answer: d

**30.** If a relation is in BCNF, then it is also in

- a. 1 NF
- b. 2 NF
- c. 3 NF
- d. All of the mentioned

Answer: d

**31.** If every non-key attribute is functionally dependent primary key, then the relation will be in

- a. First normal form
- b. Second normal form
- c. Third form
- d. Fourth normal form

Answer: b

**32.** If an attribute of a composite key is dependent on an attribute of the other composite key, a normalization called \_\_\_\_\_ is needed.

- a. DKNF
- b. BCNF
- c. Fourth
- d. Third

Answer: b

**33.** The term for information that describes what type of data is available in a database is:

- a. Data dictionary
- b. data repository
- c. Index data
- d. Metadata

Answer: d

**34.** A data type that creates unique numbers for key columns in MicrosoG Access is:

- a. Autonumber
- b. Boolean



- c. Sequential key
- d. Sequential number

Answer: a

**35.** A dependency exist between two columns when

- a. Together they constitute a composite key for the table
- b. Knowing the value in one column determines the value stored in another column
- c. The table is in 3NF
- d. Together they constitute a foreign key

Answer: a

**36.** A table on the many side of a one to many or many to many relationship must:

- a. Be in Second Normal Form (2NF)
- b. Be in Third Normal Form (3NF)
- c. Have a single attribute key
- d. Have a composite key

Answer: d

**37.** Tables in second normal form (2NF):

- a. Eliminate all hidden dependencies
- b. Eliminate the possibility of a insertion anomalies
- c. Have a composite key
- d. Have all non key fields depend on the whole primary key

Answer: a

**38.** Which-one of the following statements about normal forms is FALSE?

- a. BCNF is stricter than 3 NF
- b. Lossless, dependency –preserving decomposition into 3 NF is always possible
- c. Loss less, dependency – preserving decomposition into BCNF is always possible
- d. Any relation with two attributes is BCNF

Answer: c

**39.** Functional Dependencies are the types of constraints that are based on

- a. Key

- b. Key revisited
- c. Superset key
- d. None of the mentioned

Answer: a

**40.** Which is a bottom-up approach to database design that design by examining the relationship between attributes:

- a. Functional dependency
- b. Database modeling
- c. Normalization
- d. Decomposition

Answer: c