19 Lecture - CS403

Important Mcqs

1. **What is functional dependency in a database?**
   a) A relationship between two tables
   b) A relationship between two attributes or sets of attributes
   c) A method for sorting data
   d) A type of database query
   Answer: b) A relationship between two attributes or sets of attributes

   Which of the following is an example of a functional dependency?
   a) A customer's name and their address
   b) A customer's name and their favorite color
   c) A customer's phone number and their email address
   d) A customer's age and their gender
   Answer: c) A customer's phone number and their email address

   What does it mean if attribute B is functionally dependent on attribute A?
   a) The values in attribute A determine the values in attribute B
   b) The values in attribute B determine the values in attribute A
   c) The values in attribute A and B are independent of each other
   d) The values in attribute A and B are not related to each other
   Answer: a) The values in attribute A determine the values in attribute B

   What is a determinant in a functional dependency?
   a) The attribute that determines another attribute's value
   b) The attribute that is determined by another attribute's value
   c) An attribute that is not related to any other attributes in a table
   d) An attribute that is related to all other attributes in a table
   Answer: a) The attribute that determines another attribute's value

   Which normal form in database design involves removing partial dependencies?
   a) First normal form
   b) Second normal form
   c) Third normal form
   d) Fourth normal form
   Answer: c) Third normal form

   In a functional dependency A ? B, what does the symbol ? represent?
   a) Addition
   b) Subtraction
   c) Multiplication
   d) Dependency
   Answer: d) Dependency

   What is a transitive functional dependency?
   a) A dependency where one attribute determines another attribute

b) A dependency where three or more attributes are related
c) A dependency where an attribute determines another attribute through a third attribute
d) A dependency where two attributes are unrelated to each other
Answer: c) A dependency where an attribute determines another attribute through a third attribute

Which of the following is an example of a partial dependency?
a) A customer's name and their address
b) A customer's name and their favorite color
c) A customer's phone number and their email address
d) A customer's age and their gender
Answer: b) A customer's name and their favorite color

Which normal form requires that every non-prime attribute is dependent on the primary key?
a) First normal form
b) Second normal form
c) Third normal form
d) Fourth normal form
Answer: b) Second normal form

Which normal form is the highest level of normalization?
a) First normal form
b) Second normal form
c) Third normal form
d) Fourth normal form
Answer: d) Fourth normal form