Computer Science - ICS Part 2 Computer Science Chapter 3 Short Questions Preparation

Q1. What is entity in an ERD?

Ans 1: A data is entity or object is anything that is participating in the system.It is always properly identifiable i.e a TEACHER,a STUDENT,an AEROPLANE.

Q2. Name of Any Two Types of Relationships.

Ans 1: There are two types of relationships.
1) One to One
2) One to Many

Q3. Which activities are involved in data analysis?

Ans 1: Data analysis is an important analysis aspect while designing a database.It involves the following activities:

1. Data Flow Diagram
2. Decision Table
3. Decision Trees

Q4. Define term analysis.

Ans 1: A systematic examination and evaluation of data or information by breaking it into its components parts to uncover their interrelationships is called analysis,The following are the types of analysis.

1. Data Analysis
2. Requirements Analysis
3. Project Analysis

Q5. What is difference between Relation and Relationship.

Ans 1: Relation:A two dimensional array or table of data containing descriptive information about an entity.The entity must have a unique identifier,which is composed of a combination of one or more attributes and each attributes must have one and only one value.

Ans 2: Relationship:The relationship indicated how the entities/Objects are connected or related to each other,

- All the relationship defines the relevant connections between both objects.
- All the relationship are bi-directional.

Q6. Define E- Diagram.

Ans 1: 1) By connecting all the Data Objects along with their Relationship in the above manner, an ERD (Entity Relationship Diagram) is constructed .

2) Data modeling and the entity- Relationship Diagram provide the Analyst or Database administrator with a concise of a Data Processing Application or constructing a Physical Database.

Q7. What is the concept of Data Distribution Strategy?

Ans 1: **Data Distribution Strategy:**Many organizations today have distributed computing networks . For these organizations, a significant problem in physical database design is deciding at which nodes (or sites) in the network to physically locate the data.

Basic data distribution strategies:
a) Centralized b) Partitioned
c) Replicated d) Hybrids

Q8. Define Attribute.Give an example.

Ans 1: Attributes defines the objects,describe their characteristics and in some cases,make references to other object i.e attributes for a TEACHER could be: Teacher,Name,Gender,Last degree,Appointment Data,Pay Scale,Nationality,Telephone No.etc.

Q9. What is meant by Data modeling?

Ans 1: Data modeling is the process of identifying the data objects and the relationship between them.
Ingredients of Data Modeling:

1. Entities/Object
2. Attributes
3. Relationship
4. Cardinaality
5. Modality

Q10. Define Cardinality.

Ans 1: The number of record in a relation is called the cardinality of relation.
1. Whether some occurrence (s) of object -1 are related to some occurrence (s) of object -2
2. It is expressed as one or many e.g.
a) A husband can have only one wife and
b) A Father can have many children .
3. The relationship can be
a) One to One b) One to many
c) Many to many d) Recursive e) None
