- 1) What is the meaning of an Object-oriented Database?
  - 2) What are the components of an Object-oriented Database?
  - 3) What are the benefits of using an Object-oriented Database?
  - 4) How is an Object-oriented Database implemented?
  - 5) How is a relational database different from an Object-oriented Database?
  - 6) Explain the concept of encapsulation in the context of object-oriented databases. Why is it important?
  - 7) How does the concept of an object in the object-oriented model differ from the concept of an entity in the entity-relationship model?
  - 8) Suppose that you have been hired as a consultant to choose a database system for your client's application. For each of the following applications, state what type of database system (relational, persistent programming language—based OODB, object relational; do not specify a commercial product) you would recommend. Justify your recommendation.
    - a. A computer-aided design system for a manufacturer of airplanes.
    - b. A system to track contributions made to candidates for public office.
    - c. An information system to support the making of movies.
  - 9) Design a class hierarchy for a University Database (Student, Teacher, Course, Department) using object-oriented concepts. How would you model this in an OODBMS?
  - 10) Explain how query languages (like OQL Object Query Language) are used in object-oriented databases. How do they differ from SQL queries?