



VIT[®]

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

CAT - I

CSE 2004 – Database Management Systems

Course Name: B.Tech

Slot: D1

Max. Marks: 50

Answer ALL Questions (5 * 10 = 50)

- ✓ 1. a. If you are a database designer in IBM, Describe the physical data models for database and recommend the suitable model to operate on social media data? (5)
- ✓ b. Data Independence is achieved in modern databases using schemas, Exemplify the schema structure to achieve the above? (5)
- ✓ 2. If you are a database analyst for Oracle Corporation, as a stake holder of the corporation to train the customers on database environment, list the functionalities and different modules in DB. (10)
- ✓ 3. Major airlines companies that provide passenger services in Taiwan are: UniAir, TransAsia Airways, Far Eastern Transport, Great China Airlines etc. Taiwan's Federal Aviation Administration (TFAA) keeps a database with lots of information on all airlines. This information is made accessible to all airlines in Taiwan with the intention of helping the Companies assess their Competitive position in the domestic market. The information kept consists of: Each airline has an identification number, name of the contact person and telephone number. For each aircraft identification number, capacity and model is recorded.
- ✓ Each employee has an employee identification number, name, address, birthday, sex, position with the company and qualification.
- ✓ Each route has a route identification number, origin, destination, classification (into domestic or international route), distance of the route and price charged per passenger.
- ✓ Each airline keeps information about their buy/sell transactions (for example, selling an airplane ticket is a sell transaction, paying for maintenance is a buy transaction). Each transaction has a transaction identification number, date, description and amount of money paid/received.