**Module Test – 1**

**Class : S4 B**

**Course Code:**CST 204

**Course name:** Database Management System

**Part A: Answer All questions**

1. Distinguish between physical data independence and logical data independence with suitable examples. (3)

2. With neat diagram explain the 3 schema architecture (3)

**Part B: Answer any One question** (14)

3. Construct an ER Diagram for Company having following details:

* Company organized into DEPARTMENT. Each department has unique name and a particular employee who manages the department. Start date for the manager is recorded. Department may have several locations.
* A department controls a number of PROJECT. Projects have a unique name, number and a single location.
* Company’s EMPLOYEE name, ssno, address, salary, sex and birth date are recorded. An employee is assigned to one department, but may work for several projects (not necessarily controlled by her dept). Number of hours/week an employee works on each project is recorded; The immediate supervisor for the employee.
* Employee’s DEPENDENT are tracked for health insurance purposes (dependent name, birthdate, relationship to employee).

Express in MIN-MAX notation

4. Draw the Entity- Relationship Diagram (ERD) for the following scenario: Asalesperson may manage many other salespeople. A salesperson is managed by onlyone salespeople. A salesperson can be an agent for many customers. A customer ismanaged by one salespeople. A customer can place many orders. An order can beplaced by one customer. An order lists many inventory items. An inventory item maybe listed on many orders. An inventory item is assembled from many parts. A partmay be assembled into many inventory items. Many employees assemble aninventory item from many parts. A supplier supplies many parts. A part may be supplied by different supplier.