



**Exercise: 2**

**Entity Relationship Diagram**

**30- Jan- 2023**

### Observation (5 Marks)

Enumerate and illustrate the different notations used in Entity Relationship diagram with an example.

### Execution (15 Marks)

Create an Entity Relationship Diagram for the Academic Information Management System(AIMS). It should reflect the visual instrument of database tables and the relations between Students, Faculties, Courses etc. The main entities of Academic Information Management systems (AIMS) are Students, faculties, Courses.

Entities and their attributes:

Student\_Entity : Stu\_id, Stu\_name, Stu\_fname, Stu\_Lname, Stu\_Phno., Stu\_DOB, Stu\_Age,  
Stu\_Dept, Stu\_Addr, Stu\_Batch, Stu\_Sem

Faculty: F\_Id, F\_Name, F\_Dept, F\_Phno

Department: D\_Id, D\_Name, D\_Loc

Course: C\_Id, C\_Name, C\_Sem, C\_Credits, C\_Type

Course Offered: C\_Id, C\_Name, CDept\_Name

Course Enrollment : S\_Id, Stu\_Name, Stu\_Dept, C\_Id, C\_Name, C\_Sem, CDept\_Name

Grade: Stu\_Id, C\_Mark1, C\_Mark2, C\_Mark3, GPA

Faculty Advisor: F\_Id, F\_Name, Stu\_Id, Stu\_Name.

### On the Spot Exercise ( 5 Marks)

Draw an ER diagram for an airline flight information system

Flights (FlNo:Integer, from: string, To String, distance: integer, departs: time,  
arrives: time, price: real)

Aircraft (AID: Integer, aname: string, cruisingrange: integer)

Certified(EID:integer,aid:integer)

Employees (EID:intger, ename: string, salary:integer)