Details of Relational Schemas

1) ***'Department' Table***
    - Attributes: Department_Name
    - Primary Key: Department_Name
    - Foreign Key: None

2) ***'Course' Table***
    - Attributes: Course_ID, Course_Name, Department_Name
    - Primary Key: Course_ID
    - Foreign Key:
      Department_Name References Department_Name of 'Department' table
      ON DELETE CASCADE

3) ***'Faculty' Table***
    - Attributes: Faculty_ID, Faculty_Name, Department_Name
    - Primary Key: Faculty_ID
    - Foreign Key:
      Department_Name References Department_Name of 'Department' table
      ON DELETE CASCADE

4) ***'Course_Has_Faculty' Table***
    - Attributes: Course_ID, Faculty_ID, Year, Semester, Students
    - Primary Key: (Course_ID, Faculty_ID, Year, Semester)
    - Foreign Keys:
      Course_ID References Course_ID of 'Course' table ON DELETE CASCADE
      Faculty_ID References Faculty_ID of 'Faculty' table ON DELETE CASCADE

5) ***'TimeTable' Table***
    - Attributes: Time_ID, Course_ID, Start_Time, End_Time, Year, Weekda, Room_No, Semester

    - Primary Key:
      (Course_ID, Start_Time, End_Time, Year ,Weekda, Room_No, Semester)

    - Foreign Keys:
      (Course_ID, Year, Semester) References
      'Course_Has_Faculty' (Course_ID, Year, Semester) ON DELETE CASCADE

MySQL Code of Relational Schemas

```
CREATE TABLE IF NOT EXISTS `Department` (
  `Department_Name` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`Department_Name`));

CREATE TABLE IF NOT EXISTS `Course` (
  `Course_ID` VARCHAR(45) NOT NULL,
  `Course_Name` VARCHAR(45) NULL DEFAULT NULL,
  `Department_Name` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`Course_ID`),
  FOREIGN KEY (`Department_Name`) REFERENCES `Department`
(`Department_Name`) ON DELETE CASCADE);

CREATE TABLE IF NOT EXISTS `Faculty` (
  `Faculty_ID` VARCHAR(45) NOT NULL,
  `Faculty_Name` VARCHAR(45) NOT NULL,
  `Department_Name` VARCHAR(45) NOT NULL,
  PRIMARY KEY (`Faculty_ID`),
  FOREIGN KEY (`Department_Name`) REFERENCES `Department`
(`Department_Name`) ON DELETE CASCADE);

CREATE TABLE IF NOT EXISTS `Course_Has_Faculty` (
  `Course_ID` VARCHAR(45) NOT NULL,
  `Faculty_ID` VARCHAR(45) NOT NULL,
  `Year` INT,
  `Semester` VARCHAR(45),
  `Students` INT,
  PRIMARY KEY (`Course_ID`, `Faculty_ID`,`Year`,`Semester`),
  KEY(`Course_ID`),
   KEY(`Year`),
```

```
  KEY(`Semester`),
  KEY(`Course_ID`,`Year`,`Semester`),
 FOREIGN KEY (`Course_ID`) REFERENCES `Course` (`Course_ID`) ON DELETE CASCADE,
 FOREIGN KEY (`Faculty_ID`) REFERENCES `Faculty` (`Faculty_ID`) ON DELETE CASCADE);


CREATE TABLE IF NOT EXISTS `TimeTable` (
 `Time_ID` INT AUTO_INCREMENT,
 `Course_ID` VARCHAR(45) NOT NULL,
 `Start_Time` TIME,
 `End_Time` TIME,
 `Year` INT ,
 `Weekda` VARCHAR(45) ,
 `Room_No` VARCHAR(45) ,
 `Semester` VARCHAR(45) ,
 KEY (`Time_ID`),
 PRIMARY KEY(`Course_ID`,`Start_Time`,`End_Time`,`Year`,`Weekda`,`Room_No`,`Semester`),
 FOREIGN KEY (`Course_ID`,`Year`,`Semester`) REFERENCES `Course_Has_Faculty` (`Course_ID`,`Year`,`Semester`) ON DELETE CASCADE
);
```