Answer to the question no-01

A composite key is a key that consists of two or more columns in a table that uniquely identifies a record. When a composite key is designed as the primary key for a table it is called the composite primary key.

There are some advantage of using composite primary key :

1. Accuracy: the composite primary key can easily represent the relationship between the columns involved.
2. Data integrity: it helps to remove the conflict or duplicate record which can be easily findable.
3. Flexibility: By combining different columns, a composite primary key shows flexibility in identification of records.

When there is a similar kind of data in 2 or more columns then it is difficult to find out the specific record so in this case we generally use composite primary keys to avoid the interruption. In the composite primary key there we use 2 or more columns as a primary key for identification of the record.
Thus, the composite key is called composite primary key.

Answer to the question no-02

The benefit of using relational database over non-relational database is below:

If we discuss database management systems then it will mean that relational database management system.
The uses of relational database :

1. We can create table
2. Rename the table.
3. Delete the table
4. We can also update the table
5. Ability to search any record.

The advantages of it:

1. We can store the data organized.
2. We can query anything fastly.
3. It has parallel access.

Besides, if we do not use a relational database then we want to rename anything or delete anything or update anything then we have to run operations in all the tables as a result the process becomes slow and working speed becomes low. So it is important to use relational databases over non-relational databases.

Answer to the question no-03

A foreign key is a column or a set of columns in a table that refers to the primary key or a unique key of another table. It establishes a relationship between 2 tables, known as the parent table and the child table.

If we look a table-
Class table:

Roll	Name
2301	A
2302	B
2303	C

Library:

Book	Hired (Roll)
X	2302
Y	2302
Z	2301

Here hired (Roll) is the foreign key that references the class table.

If foreign key is not exist then:

1. Without foreign key it will be challenging to enforce relationships between tables.
2. Besides, some cases have to be managed manually without foreign key.

3. If we update anything from the referenced table then it does not automatically update the value.
4. Without foreign key the relational database will become incomplete.

Answer to the question no-04

Difference between MySQL and database:

Database	MySQL
1. The concept of organizing and storing data is called a database.	1. It is a relational database management system that follows the relational database model.
2. It has a different model and mechanism to store data.	2. As it is RDBMS, it means it uses tables and columns to store data in an organized way.
3. It uses different query languages depending on API's.	3. It uses the Structure Query Language.
4. The features vary for specific database systems.	4. Wide range of features like data indexing, stored procedures, transaction support etc.
5. It consists of overall concepts like non-relational and relational.	5. It is one kind of software.

Answer to the question no-05

Field	Datatype
Name	VARCHAR(30)
Roll	CHAR(7)
Class	INT(4)

Blood group	VARCHAR(3)
Contact no	CHAR(11)
Result	FLOAT(4)
Date of birth	DATETIME
Age	INT(4)

Answer to the question no-06

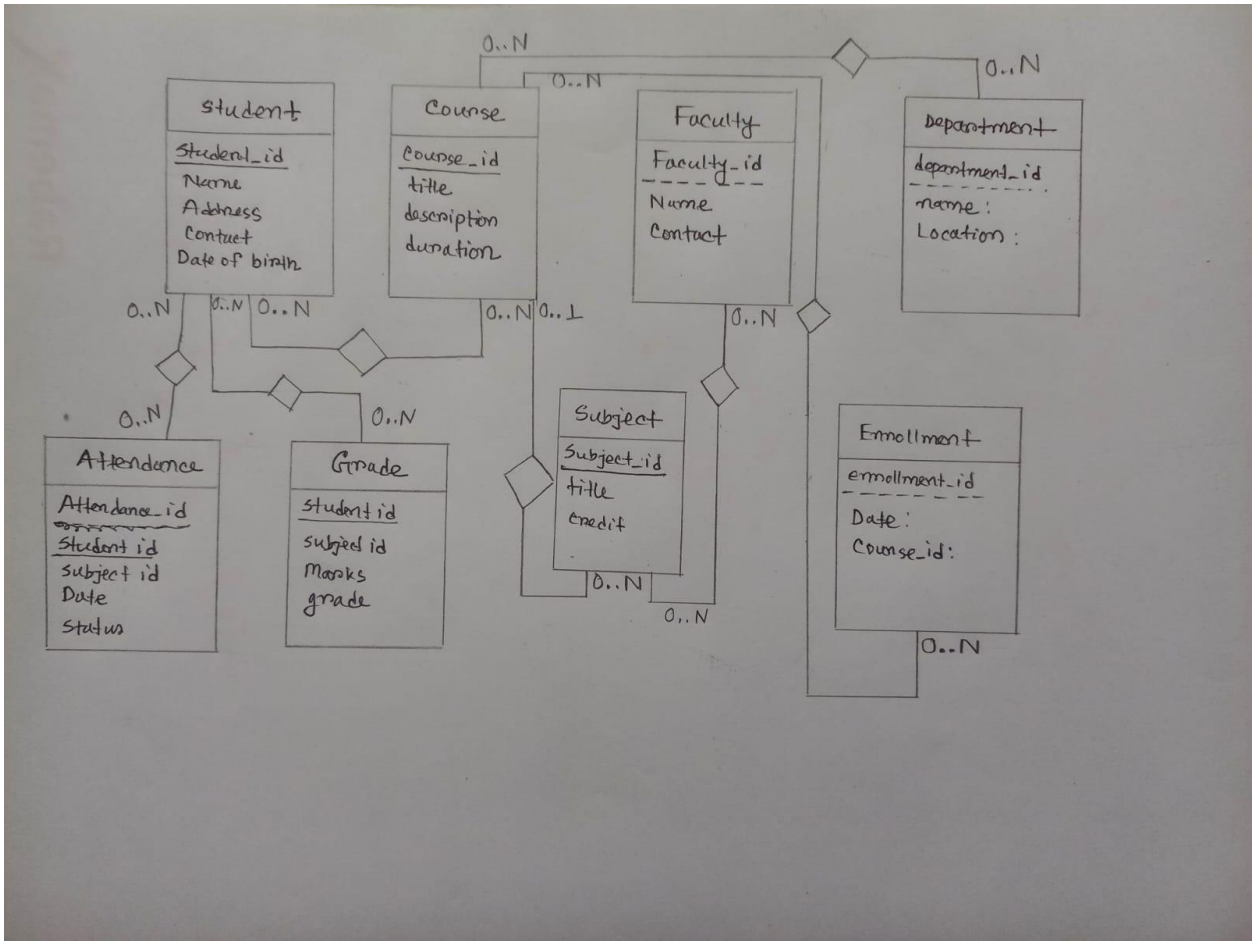
```
create database MYDATABASE;
USE MYDATABASE;


CREATE table STUDENT(
NAME varchar(30),
ROLL CHAR(7),
CLASS INT(4),
BLOOD_GROUP varchar(3),
CONTACT_NO char(11),
RESULT FLOAT(4),
DATE_OF_BIRTH datetime,
AGE INT(4)

);
```

Answer to the question no-07

ERD diagram of school management system:



Answer to the question no-08

```
create database MYDATABASE;
USE MYDATABASE;


CREATE table STUDENT(
NAME varchar(30),
ROLL CHAR(7),
CLASS INT(4),
BLOOD_GROUP varchar(3),
CONTACT_NO char(11),
```

```
RESULT FLOAT(4),
DATE_OF_BIRTH datetime,
AGE INT(4)

);
rename table STUDENT to Learners;
DROP table Learners;
```