BIRLA INSTITUTE OF TECHNOLOGY
(MESRA, PATNA CAMPUS)

SQL QUERIES ASSIGNMENT

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COMPLETE QUERY :

use schooldata;

create table school(Student_id int not null,Standard int,Subject_id int,Marks int,primary key(Student_id));

create table teacher_class_map(Teacher_id int not null,Standard int,Subject_id int,primary key(Teacher_id));

 create table Student(Student_id int not null,Student_name varchar(20),primary key(Student_id));

create table Teacher(Teacher_id int not null,Teacher_name varchar(20),primary key(Teacher_id));

create table Subjects(Subject_id int not null,Subject_name varchar(20),Optional varchar(1) ,primary key(Subject_id));

insert into school
values (21,8,101,95);

insert into school
values (22,8,101,55);

 insert into school
values (23,9,102,70);

 insert into school

values (24,9,102,80);

 insert into school
values (25,10,103,70);

 insert into school

```sql
values (26,10,103,50);

insert into school
values (27,11,104,90);

insert into school
values (28,11,104,60);

insert into school
values (29,12,105,86);

insert into school
values (30,12,105,66);

insert into school
values (29,12,105,86);

insert into teacher_class_map
values (1,8,101);

insert into teacher_class_map
values (2,9,102);

insert into teacher_class_map
values (3,10,103);

insert into teacher_class_map
values (4,11,104);

insert into teacher_class_map
values (5,12,105);

select * from teacher_class_map;

insert into Student values (21,'HIMANSHU');
insert into Student
values (22,'KISLAY');
insert into Student
```

```sql
 values (23,'ANISH');

insert into Student
 values (24,'RAJ');

 insert into  Student
values (25,'SHUBHAM');

 insert into Student
values (26,'SOURABH');

insert into Student
 values (27,'APARNA');

 insert into Student
 values (28,'JAYANTI');

insert into Student
 values (29,'SOUMYA');

insert into Student
values (30,'SHILPI');

 select * from Student;

 insert into Teacher
values (1,'PANDEYSIR');

 insert into Teacher

 values (2,'AYAN DAS');

insert into Teacher
values (3,'SHWETA MAUKHERJEE');

insert into Teacher
values (4,'RATNESH Mishra');

 insert into Teacher
```

values (5,'UMARBUIN Kumar');

insert into Subjects
values (1,'Mathematics','N');

insert into Subjects
values (2,'Physics','N');

insert into Subjects
values (3,'Chemistry','N');

insert into Subjects
values (4,'Biology','Y');

insert into Subjects
values (5,'English','N');

NOW QUESTIONS ASKED :

SQL QUERIES :

#1 no of students in each standard

select Standard,count(Standard) as Count from school group by Standard;

#2 students passed -

```sql
 select count(Student_id) as 'Number of student passed' from school where Marks >= 60;
```

#3 failed in more than one sub

```sql
SELECT COUNT(student_id) FROM school WHERE marks IN (SELECT marks < 60 FROM school WHERE marks IN (SELECT SUM(marks) < 50 FROM school));
```

#4 performance of each teacher

#passed

```sql
SELECT teacher_class_map.Teacher_id,count(Student_id) as 'Passed' FROM school INNER JOIN teacher_class_map ON school.Subject_id=teacher_class_map.Subject_id where school.marks >= 60 group by Teacher_id;
```

#failed

```sql
SELECT teacher_class_map.Teacher_id,count(Student_id) as 'Failed' FROM school INNER JOIN teacher_class_map ON school.Subject_id=teacher_class_map.Subject_id where school.marks < 60 group by Teacher_id;
```

#5

#5.1 total students

```
select count(Student_id) as 'Total Students' from school;
```

#5.2 student - teacher ratio

```
select count(Student_id)/count(distinct Subject_id) as 'Student-teacher ratio' from school;
```

#5.3 #avg class size

```
select count(Student_id)/count(distinct Subject_id) as 'Average Class size' from school;
```

#5.4 percentage of student passed

```
select count(Student_id) * 100.0/(select count(Student_id) from school) as 'Percentage of student passed' from school where Marks >= 60;
```

#5.5 percentage with distinction.

```
 select count(Student_id) * 100.0/(select count(Student_id) from school) as 'Percentage of student passed with distinction' from school where Marks >= 70;
```

THE END