Class Test 13

Belle is held captive by the mighty Beast in his ominous castle. She is forbidden to go outside its gates but is free to roam around inside it. However, the only place Belle seems to enjoy is the library as she loves to read story books. Seeing this Beast orders that his library should be restructured and in order to do this he has hired your company. Your job is to create a relational database for his Library from the requirements specified below:

RDBMS- Oracle 10g

Language-SQL and PL/SQL

1. Log in as system and create a *user* Students having *password* ADBMS. The user Students is granted *unlimited tablespace*. Students is also granted the permission to *create* tables, view and sequence.
2. After logging in with username and password Students *run* the following *queries* to *create tables* and *insert data* into the created tables.

```
create table author(a_id number(10)primary key, a_name
varchar2(20));
create table book(b_id number(10),b_name varchar2(20), isbn
varchar2(20),edition varchar2(20), c_id number(10),a_id number(10),
primary key(b_id,edition) );
create table category(c_id number(10)primary key, c_name
varchar2(20));
alter table book add constraint fk_category foreign key (c_id)
references category(c_id);
alter table book add constraint fk_author foreign key (a_id)
references author(a_id);

insert into author values('1','J.K. Rowling');
insert into author values('2','Stephenie Meyer');
insert into author values('3','Dan Brown');
insert into author values('4','Humayun Ahmed');
insert into author values('5','Zafar Iqbal');

insert into category values('11','Fantasy');
insert into category values('22','Romance');
insert into category values('33','Thriller');
insert into category values('44','Anti-logic');
insert into category values('55','Science Fiction');

insert into book values('111','HP...Deathly Hallows','978-3-16-
148410-0','10','11','1');
insert into book values('222','Breaking Dawn','979-3-16-148410-
0','10','22','2');
insert into book values('333','Origin','980-3-16-148410-
0','10','33','3');
insert into book values('444','Holud HimuKalo RAB','981-3-16-
148410-0','10','44','4');
insert into book values('555','Obonil','982-3-16-148410-
0','10','55','5');
```

3. Create a *function* that returns the total number of books stored inside the library.

4. Beast has ordered that all the books in his library should be of the latest edition. So, create a *procedure* to update the value of the edition column of book table from 10 to 20.

5. Create a *record* that can output the name of the book whose id is 111.

6. Create a *record* that can output the name of all the books inside the library.

7. Create a *cursor* that can output the id and name of all the categories the books are sorted in.

8. Create a *trigger* in such a way that whenever a new row is inserted into the category table an output 'New Category Added' is generated.

9. Create a *trigger* in such a way that whenever a row is deleted from the category table an output 'A Category Deleted' is generated.

10. Create a *package* that contains a procedure which can display the book name of any book whose id is passed as its parameter.