**Lab Test**

**ICE 4132: Database Management System**

**Time: 2 hours Marks: 40**

**Q1.**Use the Pubs database and solve the following **Task-1 to Task-5**.

**Task-1:** Show the name of the books which have royalty of 12 to 24.

**Task-2:** Show the AU\_LNAME, STATE from Author which has STATE is CA.

**Task-3:** show the book type and the average price of the each type if average price is higher than 15.

**Task-4:** Show the title of a book, the corresponding author and publisher name using join method.

**Task-5:** Show the author name, city, publisher name and city only for which the authors and the publishers live in the same city using join method.

**Q2.**Solve the following **Task-6 to Task-10.**

**Task 6:** Create a database called Shops.

**Task 7:** Create 3 tables in the Shops database having the structure as shown below.

1. Table Name : CustomerAndSuppliers

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Data type** | **Size** | **Requirement** |
| cusl\_id | Character | 6 | 1. Primary key 2. Starting with C or S and then 5 digits i.e. C00001 or S0001. |
| cusl\_fname | character | 15 | NULL not allowed |
| cusl\_lname | character | 15 | Use variable character size |
| cusl\_address | text | 50 |  |
| cusl\_telno | character | 12 | Must follow the format like 012-34567890 |
| cusl\_city | character | 12 | Default value is Rajshahi |
| sales\_amnt | money |  | Negative values not allowed |
| proc\_amnt | money |  | Negative values not allowed |

1. Table Name : Items

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Data type** | **Size** | **Requirement** |
| item\_id | Character | 6 | 1. Primary key 2. Starting with P and then 5 numbers i.e. A0001. |
| item \_name | character | 12 |  |
| item\_category | character | 10 | Example: Electrical, Mechanical, Software, Books  etc. |
| item \_price | float | 12 | Negative values not allowed |
| item\_qoh | integer |  | Negative values not allowed |
| item\_last\_sold | date |  | Default value is current date |

3. Table Name : Transactions

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Data type** | **Size** | **Requirement** |
| tran\_id | Character | 10 | 1. Primary key 2. Starting with T and then 9 numbers i.e. T000000001. |
| item \_id | character | 6 | Foreign key with reference to item table |
| cust \_id | character | 5 | Foreign key with reference to customer table |
| tran\_type | character | 1 | Either S or O, (S for sales Order to supplier) |
| tran\_quantity | integer | 12 | Only positive values. |
| tran\_date | date and  time |  | Default is current date |

**Task 8:** Insert some sample data into CustomerAndSuppliers and Item tables.

**Task 9:** Write a stored procedure that prints out item categories, total number items available and average price of that category in the following format.

Category Total number of items Average Price

**Task 10:** Write a stored procedure that

1. Accepts as input i) category name and ii) price value
2. And increase the price of each item until the average price crosses the given price value.