SQL Exam  
Date – 20/06/2024

Total Marks – 30 (2 Marks for each correct answer)

Table - **Customers**

|  |  |  |
| --- | --- | --- |
| Column Name |  |  |
| CustomerID | INT | IDENTITY |
| FirstName | VARCHAR |  |
| LastName | VARCHAR |  |
| City | VARCHAR | Default – New York |
| State | VARCHAR |  |
| Zip | VARCHAR | NOT NULL |

**Sample Data:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FirstName** | **LastName** | **City** | **State** | **Zip** |
| 'John' | 'Miller' | 'Asbury' | 'NYK' | '23433' |
| 'Fred' | 'Hammill' | 'Basham' | 'AK' | '85675' |
| 'Stan' | 'Mellish' | 'Callahan' | 'WY' | '38556' |
| 'Adrian' | 'Caparzo' | 'Denver' | 'CO' | '12377' |
| 'Mike' | 'Horvath' | 'Easton' | 'IN' | '47130' |
| 'Irwin' | 'Irwin' | 'Frankfurt' | 'KYC' | '45902' |
| 'George' | 'Marshall' | 'Gallipoli' | 'ND' | '34908' |
| 'Frank' | 'Costello' | 'Honolulu' | 'HI' | '23905' |
| 'Billy' | 'Costigan' | 'Immice' | 'SC' | '75389' |
| 'Shelly' | 'Lights' | 'Lights' | 'AZ' | '35263' |
| 'Chirsty' | 'Melton' | 'Spade' | 'CAN' | '97505' |
| 'Amanda' | 'Owens' | 'Flask' | 'CN' | '50386' |
| 'Brittany' | 'Smits' | 'Bourbon' | 'KY' | '24207' |
| 'Kristy' | 'Bryant' | 'Tarp' | 'FL' | '58960' |
| 'Kelly' | 'Street' | 'TableTop' | 'ID' | '57732' |
| 'Tricia' | 'Hill' | 'Camera' | 'ME' | '46738' |
| 'Holly' | 'Raines' | 'Compact' | 'MS' | '35735' |
| 'Natalie' | 'Woods' | 'Woods' | 'IN' | '87219' |
| 'Wendy' | 'Hilton' | 'Action' | 'KYC' | '47093' |

Table - **Products**

|  |  |  |
| --- | --- | --- |
| **Column Name** |  |  |
| ProductID | INT | IDENTITY |
| ProdName | VARCHAR |  |
| RecommendedPrice | MONEY | Should be > 25 |
| Category | VARCHAR | NOT NULL |

**Sample Data:**

|  |  |  |
| --- | --- | --- |
| **ProdName** | **RecommendedPrice** | **Category** |
| 'DVD' | 105 | 'LivingRoom' |
| 'Microwave' | 98 | 'Kitchen' |
| 'Monitor' | 200 | 'Office' |
| 'Speakers' | 85 | 'Office' |
| 'Refrigerator' | 900 | 'Kitchen' |
| 'CoffeePot' | 165 | 'Kitchen' |
| 'VCR' | 35 | 'LivingRoom' |

Table - **Sales**

|  |  |  |
| --- | --- | --- |
| Column Name |  |  |
| SaleID | INT | IDENTITY |
| ProductID | INT | Foreign Key |
| CustomerID | INT | Foreign Key |
| SalePrice | MONEY |  |
| SaleDate | DATE |  |

**Insert Script for Sample Data:**

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(1,1,130,'2/6/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(2,2,97,'1/7/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,3,200,'8/8/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(4,4,80,'4/9/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(5,5,899,'10/10/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(6,6,150,'10/11/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,7,209,'12/12/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(4,8,90,'5/13/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(6,9,130,'6/14/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(2,14,85,'6/19/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,15,240,'9/20/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(1,16,99,'7/21/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(1,17,87,'3/22/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(2,18,99,'1/23/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(6,19,150,'3/24/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(5,5,900,'3/10/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(4,6,86,'8/11/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(2,7,88,'8/12/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,8,198,'12/13/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(1,9,150,'5/14/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(6,14,99,'7/19/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(6,15,104,'9/20/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,16,270,'2/21/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(4,17,90,'7/22/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(1,1,130,'3/6/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(2,2,102,'4/7/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(1,3,114,'11/8/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(5,4,1000,'5/9/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(5,5,1100,'10/10/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,6,285,'6/11/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(2,7,87,'10/12/2005')

INSERT INTO Sales(ProductID, CustomerID, SalePrice, SaleDate) VALUES(3,8,300,'7/13/2005')

1. Write DDL scripts for all the 3 Tables. Use constraints wherever applicable.
2. Write DML scripts for inserting data into Customers and Products table.
3. Write a SQL query to rename column ‘ProdName’ to ‘ProductName’
4. Write select query for ProductId, SaleProce and Sale Date for all products sold in the month of June 2005.
5. Create MS SQL query for Unique CustomerID, First Name, and Last Name of those individuals in the Customer table.
6. Write Query for Number of Sales by ProductId where the average Sale Price is more than or equal to 100 dollars.
7. Write a select query to display First, Last Name, City and Zip of all the customers where the state having 3 characters.
8. Find count of customers by State. Display Count and respective state.
9. Write a select query to display Full name (Column Name – FullName) and City of all the customers. Include one more column in select list for Name abbreviation and store the value as First letter of both First Name and Last Name.
10. Update year of SaleDate to 2006.
11. Find total Sale Price for each product which are sold between Jan 2006 to July 2006.
12. Add column Email to Customers Table and update Email values for all customer as [FirstName.LastName@yahoo.com](mailto:FirstName.LastName@yahoo.com).
13. What is the average recommended price?
14. Find count of products by category.
15. What is the highest SalesPrice for Monitors??