

a. Create table

Create table books (

BookID INT Primary Key,
Title Varchar (100),
Author Varchar (100),
Price Decimal (10, 2),
PublishDate Date

);

Create table Customers (

CustID INT Primary Key,
Name Varchar (100),
Email Varchar (100),
JoinDate Date.

);

Create Table Orders (

OrderID INT Primary Key,
CustID INT,
BookID INT,
OrderDate Date,
Quantity INT,
Foreign key (CustID) References
Customers (CustID),
Foreign key (BookID) References
Books (BookID).

b. Insert given records

Insert into Books values

(101, 'The Alchemist', 'Paulo Coelho', 350, '2010-06-15'),
(102, 'Atomic Habits', 'James Clear', 450, '2018-10-16'),
(103, 'Clean Code', 'Robert Martin', 550, '2008-08-01'),
(104, 'Think Like a Monk', 'Jay Shetty', 400, '2020-03-08'),
(105, 'Python Crash Course', 'Eric Matthes', 500, '2019-05-10');

Insert into Customers Values

(201, 'Arjun Rao', 'arjun@gmail.com', '2021-02-10'),
(202, 'Priya Nair', 'priya@gmail.com', '2020-07-25'),
(203, 'John Smith', 'John@gmail.com', '2022-01-14'),
(204, 'Maria Lopez', 'maria@gmail.com', '2019-01-30');

Insert into Orders Values

(301, 201, 102, '2022-03-05', 2),
(302, 202, 101, '2021-09-12', 1),
(303, 203, 105, '2022-05-20', 3),
(304, 204, 104, '2022-12-25', 1),
(305, 201, 103, '2021-11-18', 1);

C. 1. Select Upper (Name) As CustomerName
From Customers;

2. Select Lower (Name) As CustomerName
From Customers;

3. Select Substring (Title, 1, 3) As shortTitle
From Books;

4. Select Substring (Email, locate ('@', Email) + 1)
As Domain From Customer;

5. Select Title, Length (Title) As TitleLength From
Books;

6. Select Replace (Title, 'Book', 'Text') As Updated
From Books;

7. Select Concat (Author, ' - ', Title) As Author and
-Book From books;

8. Select Title From Books
Where Author like
'% a % d' ;

- 11
9. Select Title, Year(PublishDate) As PublishYear
From Books;
 10. Select Name, MonthName(JoinDate) As JoinMonth
From Customers;
 11. Select * From Customers Where Year(JoinDate)
= 2021;
 12. Select OrderID, DayName(OrderDate) As OrderDay
From Orders;
 13. Select Title, TimestampDiff(Year, PublishDate,
Curdate()) As AgeInYears From Books;
 14. Select Name, DateDiff(Curdate(), JoinDate)
As DaysSinceJoin From Customers;
 15. Select * From Orders Where Month
(OrderDate) = 12;
 16. Select Count(*) As TotalBooks From
Books;

17. Select AVG(Price) As AvgPrice From Books;
18. Select MAX(Price) As MaxPrice, MIN(Price) As MinPrice From Books;
19. Select COUNT(*) As CustomersAfter2020 From Customers Where Year(JoinDate) > 2020;
20. Select SUM(Quantity) As TotalBooksOrdered From Orders;
21. Select CustID, SUM(Quantity) As TotalQuantity From Orders Group By CustID;
22. Select BookID, AVG(Quantity) As AvgQuantity From Orders Group By BookID;
23. Select BookID, SUM(Quantity) As TotalOrdered From Order Group By BookID Order By TotalOrdered DESC LIMIT 1;

24. Select o.BookID, sum(b.Price * o.Quantity)
As Revenue
From Orders o
Join Books b ON o.BookID = b.BookID
Group By o.BookID;

25. Select Year(OrderDate) As OrderYear,
COUNT(*)
As Total Orders
From Orders
Group By Year(OrderDate);