```sql
--Q1. What is the total revenue generated by male vs. female customers?
select gender, SUM(purchase_amount) as revenue
from customer
group by gender

--Q2. Which customers used a discount but still spent more than the average purchase amount?
select customer_id, purchase_amount
from customer
where discount_applied = 'Yes'
and purchase_amount >= (select AVG(purchase_amount) from customer)

--Q3. Which are the top 5 products with the highest average review rating?
select item_purchased,
round(avg(review_rating::numeric),2) as "Average Product Rating"
from customer
group by item_purchased
order by avg(review_rating) desc
limit 5

--Q4. Compare the average Purchase Amounts between Standard and Express Shipping.
select shipping_type,
ROUND(AVG(purchase_amount),2)
from customer
where shipping_type in ('Standard','Express')
group by shipping_type;

--Q5. Do subscribed customers spend more? Compare average spend and total revenue
SELECT subscription_status,
COUNT(customer_id) AS total_customers,
ROUND(AVG(purchase_amount),2) AS avg_spend,
ROUND(SUM(purchase_amount),2) AS total_revenue
FROM customer
GROUP BY subscription_status
ORDER BY total_revenue,avg_spend DESC;

--Q6. Which 5 products have the highest percentage of purchases with discounts applied?
SELECT item_purchased,
ROUND(100.0 * SUM(CASE WHEN discount_applied = 'Yes' THEN 1 ELSE 0 END)/COUNT(*),2) AS
discount_rate
FROM customer
GROUP BY item_purchased
ORDER BY discount_rate DESC
LIMIT 5;

--Q7. Segment customers into New, Returning, and Loyal based on total purchases
with customer_type as (
SELECT customer_id, previous_purchases,
CASE
WHEN previous_purchases = 1 THEN 'New'
WHEN previous_purchases BETWEEN 2 AND 10 THEN 'Returning'
ELSE 'Loyal'
END AS customer_segment
FROM customer)
select customer_segment,count(*) AS "Number of Customers"
from customer_type
group by customer_segment;

--Q8. Top 3 most purchased products within each category
WITH item_counts AS (
SELECT category,
item_purchased,
COUNT(customer_id) AS total_orders,
ROW_NUMBER() OVER (PARTITION BY category ORDER BY COUNT(customer_id) DESC) AS item_rank
FROM customer
GROUP BY category, item_purchased)
SELECT item_rank,category,item_purchased,total_orders
FROM item_counts
```

```sql
WHERE item_rank <=3;

--Q9. Are repeat buyers also likely to subscribe?
SELECT subscription_status,
COUNT(customer_id) AS repeat_buyers
FROM customer
WHERE previous_purchases > 5
GROUP BY subscription_status;

--Q10. Revenue contribution of each age group
SELECT age_group,
SUM(purchase_amount) AS total_revenue
FROM customer
GROUP BY age_group
ORDER BY total_revenue desc;
```