1. **What is the difference between GROUP BY and ORDER BY?**
   Group by: group rows that have same values in one row and it works with aggregation functions. For example, we have department table (group by department) it will create one row per department.

   Order by: sort the values in descending or ascending order. For example, we have salary in employees table (order by salary desc) it will show the salary from highest to lowest.

2. **Why do we use HAVING instead of WHERE when filtering aggregate results?**
   Having is different from where, where is used for filtering the rows before aggregation and having will filter the result after aggregation.

3. **What are common beginner mistakes when writing aggregation queries?**
   Forget adding group by with aggregation functions wherever needed.
   Using where instead of having with aggregation functions.

4. **When would you use COUNT(DISTINCT ...), AVG(...), and SUM(...) together?**
   When we want a summary view.

5. **How does GROUP BY affect query performance, and how can indexes help?**
   The performance will be slow if we have a large amount of data.
   The indexes will help in performance and avoid full scanning of the data.