Short Answer

Answer the following questions with complete sentences in your own words. You are encouraged to conduct your own research online or through other methods before answering the questions. If you research online, please consult multiple sources before you write down your answers. You are expected to be able to explain your answers in detail (Provide examples to each question).

1. What is aggregate function? How do you use it?
2. Can aggregate functions be used without having and group by? Can it be used with having but not group by? If so, what would the result be? If not, why?
3. What are joins? What are basic types of joins?
4. What kind of relationship does self-join imply? Can you give an example of self-join?
5. What does cross join do? How is it different from other types of join? Give two examples of when you would use it.
6. What are sub-query? What are different types of sub-queries?
7. What are set operators? How is it different from a join?
8. What are the differences between UNION and UNION ALL?What are some rules you have to follow when you use set operators?
9. What are views? How is it different from a table?What happens if you modify data on view?
10. What is user defined stored procedure? Why do you need it?
11. What are indexes? Why are they needed?
12. Is index always useful? Do you want to create as many index as possible? Why or why not?
13. How is data stored if there is no clustered index? What about when you create a clustered index?
14. What are the differences between clustered and non-clustered index?