

XIV. B. Severe Weather Questions:

1. If you hear that a cyclone is approaching, should you immediately seek shelter? Explain.
2. Compare the wind speeds and the sizes of middle-latitude cyclones, tornadoes, and hurricanes.
3. Although tornadoes and hurricanes are dangerous storms, they are not responsible for the greatest number of storm-related deaths in the United States. What is the deadliest storm phenomenon?
4. What are the primary requirements for the formation of thunderstorms?
5. Where would you expect thunderstorms to be most common on Earth?
In the United States?
6. During what season and at what time of day is air-mass thunderstorm activity greatest? Why?
7. Describe how downdrafts in a severe thunderstorm act to maintain updrafts. What is a gust front?
8. Briefly describe the formation of a squall line along a dry line.
9. How is thunder produced?
10. What is heat lightning?

11. Why do tornadoes have such high wind speeds?

12. What general atmospheric conditions are most conducive to the formation of tornadoes?

13. When is the “tornado season”? Can you explain why it occurs when it does? Why does the area of greatest tornado frequency migrate?

14. Violent (F4-F5) tornadoes are only about 2% of the total. What percentage of tornado fatalities is associated with these strongest storms?

15. Distinguish between a tornado watch and a tornado warning.