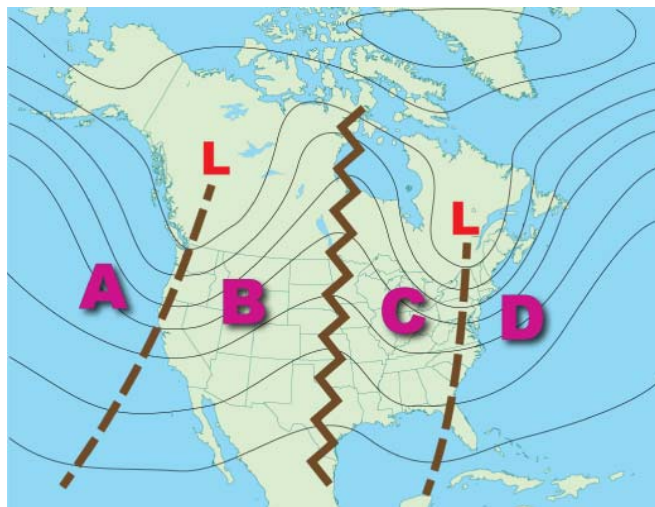




Upper Air Charts - Review Questions

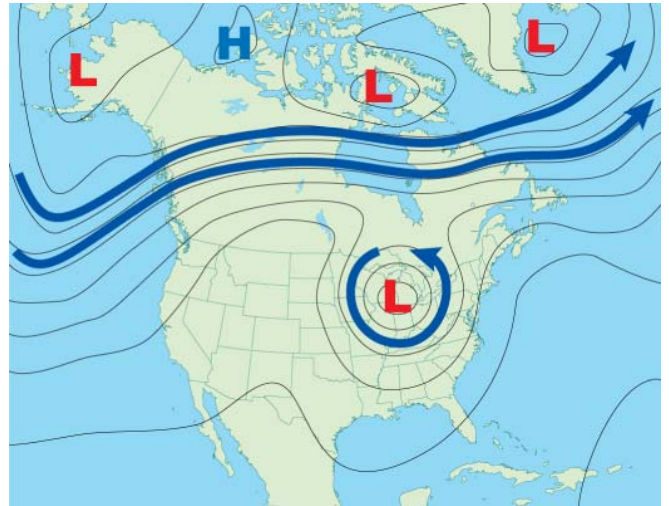
1. The term “gradient” means the height of a particular constant pressure chart. (TRUE, FALSE)
2. “Iso” in isobar means...
 - a. Isolated.
 - b. Equal.
 - c. Separated.
 - d. Individual.
 - e. Combined.
3. By convention meteorologists refer to isoheight lines as _____ on upper air charts.
 - a. vectors
 - b. isobars
 - c. contours
 - d. millibars
4. The slow motion of _____ can mean fairly persistent weather patterns.
 - a. short waves
 - b. long waves
 - c. cold fronts
 - d. high pressure systems
5. Short waves are _____ the long waves and move faster from _____ the long waves.
 - a. embedded within / west to east through
 - b. parallel to / west to east through
 - c. embedded within / east to west through
 - d. along side / north to south across
6. Short waves move faster in winter than summer. (TRUE, FALSE)
7. The areas where precipitation will most likely occur are...
 - a. C and D
 - b. A and C
 - c. B and D
 - d. A and D



8. Negative tilted troughs tend to produce the most severe weather. (TRUE, FALSE)

9. The low pressure area over the Great Lakes represents what type of weather pattern?

- a. Cut-off low
- b. Omega block
- c. Blocking low
- d. Zonal flow



10. The altitude where any particular pressure occurs will be _____ in the atmosphere in regions of _____ air.

- a. lower / colder
- b. higher / denser
- c. lower / warmer
- d. higher / colder

11. The 1000-500 mb thickness value of 540 (5,400 meters) is the traditional line to determine _____.

- a. snow versus fog
- b. rain versus drizzle
- c. rain versus thunderstorm
- d. snow versus rain

12. The jet stream is most readily seen on the _____ and _____ constant pressure charts.

- a. 200 mb / 300 mb
- b. 300 mb / 400 mb
- c. 400 mb / 500 mb.
- d. 500 mb / 700 mb

13. The closer the thickness lines are 'packed' on a chart the...

- a. more rapid the temperature changes across the lines.
- b. slower the temperature changes across the lines.
- c. the faster rain changes to snow across the lines.
- d. greater the rain rate changes across the lines.

14. The more grid points there are in any model, the finer the resulting detail in the forecast and the faster model finishes its run. (TRUE, FALSE)
15. The _____ thickness line is a good first guess for the rain verses snow determination.
- 530 (5,300 meter)
 - 570 (5,700 meter)
 - 540 (5,400 meter)
 - 560 (5,600 meter)
16. Other terms for 'short wave' include...
- Piece of energy, cut off low and thermal low.
 - Upper level energy, pocket of cold air and bubble high.
 - Energy max, upper level ridge and thermal low.
 - Piece of energy, upper level disturbance and pocket of cold air..
17. The forecast from a model on day 10 predicts snow for your location you should consider cancelling any outdoor activities. (TRUE, FALSE)
18. Short range MOS extends out to 50 miles from the forecast point while long range MOS extends out to 150 miles. (TRUE, FALSE)
19. Short waves move faster east to west than long waves. (TRUE, FALSE)
20. If meteorologists could only look at one chart, the _____ level chart would, by far, be the top choice.
- 300 mb
 - 850 mb
 - 500 mb
 - 700 mb