## Field Maps and Isolines

1. The contour interval is
(1) the distance between two contour lines
(2) a line joining points at the same elevation above sea level
(3) the difference in elevation between two consecutive contour lines
(4) the spacing between contour lines on a map.
2. The United States weather map below shows weather data plotted for a December morning.

The isolines shown on the map most likely are
(1) contour lines
(2) latitude lines
(3) isobars
(4) isotherms

3. The zero-foot contour line on a map always represents
(1) mean sea level
(2) the bottom of the deepest ocean
(3) the lowest elevation
(4) the average elevation
4. What is the elevation of the highest contour line shown on the map to the right?
(1) 10,000 feet
(2) 10,688 feet
(3) 10,700 feet
(4) 10,788 feet

5. The diagram to the right is a contour map. Between which two points is the slope of the hill steepest?
(1) $A$ and $B$
(3) C and D
(2) B and C
(4) A and D


Base your answers to questions 6 through 8 on the topographic map shown below.

6. What is the most likely elevation of point A?
(1) 1,250
(3) 1,750
(2) 1,650
(4) 1,850
7. What section of the map shows the steepest gradient?
(1) southeast
(3) southwest
(2) northeast
(4) northwest
8. What is the approximate vertical (north-south) distance of the map?
(1) 2 kilometers
(3) 3.5 kilometers
(2) 2.5 kilometers
(4) 4 kilometers

Base your answers to questions 9 through 12 on the topographic map below.
9. Which location most likely has an elevation of 45 meters?
(1) $A$
(3) C
(2) $B$
(4) D
10. Between which two locations does the steepest gradient occur?
(1) $A$ and $B$
(3) C and D
(2) B and C
(4) A and C
11. What is the approximate distance between points $B$ and $D$ ?
(1) 2 km
(3) 3 km
(2) 2.5 km
(4) 3.5 km

12. To go downhill you would walk from
(1) point B to point C
(2) point $C$ to point $D$
(3) point A to point C
(4) point $C$ to point $A$
13. The map to the right shows the average number of days with thunderstorms in a part of the United States.

Approximately how many days per year do thunderstorms occur in Albany, New York?
(1) 20
(3) 28
(2) 35
(4) 40

14. A contour map indicates that a stream is flowing across the landscape. If the stream has a constant volume, where on the map would the stream most likely have the highest velocity (speed)?
(1) as the stream moves parallel to two contour lines
(2) as the stream moves through a large region that has no contour lines
(3) as the stream moves across several closely spaced contour lines
(4) As the stream moves across several widely spaced contour lines
15. The topographic map shows part of a stream.

In which general direction is the stream flowing?
(1) northeast
(2) northwest
(3) southeast
(4) southwest

16. Point $X$ is a location on the topographic map below. Elevations are measured in meters.


N
N

What is a possible elevation, in meters, of point $X$ ?
(1) 55
(3) 68
(2) 57
(4) 70

Base your answers to questions 17-20 on your knowledge of earth science and the diagram below. The diagram represents the isolines of an elevation field (topographic map) for a region. The dashed lines represent the streams flowing in this region. [Note: On this map the contour interval is measured in feet and the scale is measured in kilometers.]

17. Which hill could be 590 feet high?
(1) $A$
(2) $B$
(3) C
(4) $D$
18. Which side of hill C is the steepest?
(1) northeast
(3) northwest
(2) southeast
(4) southwest
19. The straight line distance between the tops of hills $A$ and $D$ is closest to
(1) 1.1 km
(2) 2.0 km
(3) 2.9 km
(4) 3.9 km
20. A stream which flows away from the lake is located between
(1) hills $A$ and $B$
(3) hills C and D
(2) hills B and C
(4) hills D and A

