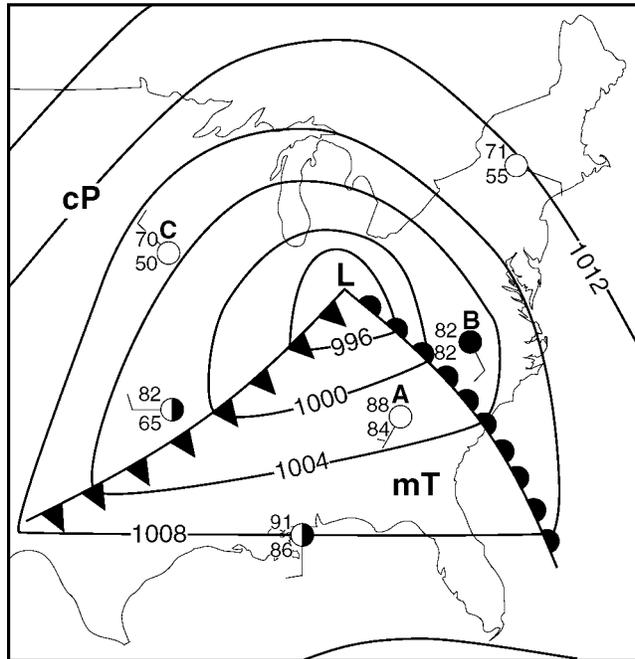


1. Base your answer to the following question on the weather map below. The map shows a low-pressure system and some atmospheric conditions at weather stations A, B, and C.



Which cross section best represents the air masses, air movement, clouds, and precipitation occurring behind and ahead of the warm front located between stations A and B?

- 1)
- 2)
- 3)
- 4)

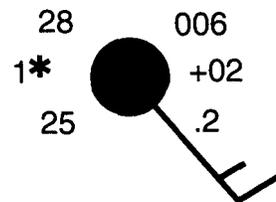
2. Which statement best explains why precipitation occurs at frontal boundaries?

- 1) Cold fronts move slower than warm fronts.
- 2) Cold fronts move faster than warm fronts.
- 3) Warm, moist air sinks when it meets cold, dry air.
- 4) Warm, moist air rises when it meets cold, dry air.

3. When the dry-bulb reading of a thermometer is 20°C and the wet-bulb reading is 11°C, the relative humidity is approximately

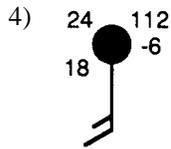
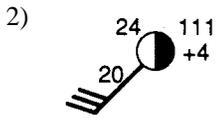
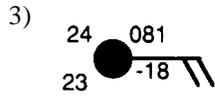
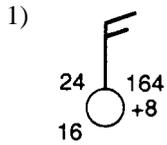
- 1) 17%
- 2) 30%
- 3) 33%
- 4) 55%

4. What is the air pressure indicated on the weather station model shown below?

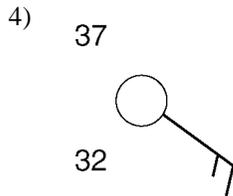
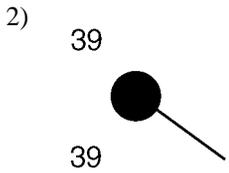
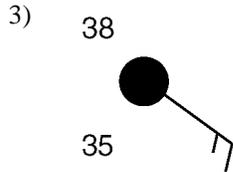
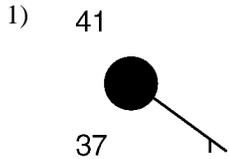


- 1) 900.6 mb
- 2) 960.0 mb
- 3) 1000.6 mb
- 4) 1006.0 mb

5. Which weather station model indicates the greatest probability of precipitation?



6. Which weather station model shows the highest relative humidity?



7. The dewpoint temperature of the air is determined to be 10.°C. If the accepted value for the dewpoint temperature on that day is 12°C, what is the percent deviation from the accepted dewpoint value?

- 1) 16.7%
- 2) 2.0%
- 3) 13.9%
- 4) 83.3%

8. Which atmospheric condition will cause the greatest amount of evaporation from the surface of a lake?

- 1) calm, dry, cold
- 2) moist, cold, windy
- 3) calm, moist, hot
- 4) dry, hot, windy

9. During which phase change does water absorb the most heat?

- 1) freezing
- 2) melting
- 3) condensation
- 4) evaporation

10. In the Northern Hemisphere, in which direction does surface wind circulate in a high-pressure air mass?

- 1) clockwise and toward the center
- 2) clockwise and away from the center
- 3) counterclockwise and toward the center
- 4) counterclockwise and away from the center

11. In the Northern Hemisphere, what is the direction of surface wind circulation in a low-pressure system?

- 1) counterclockwise and outward from the center
- 2) counterclockwise and toward the center
- 3) clockwise and outward from the center
- 4) clockwise and toward the center

## Reference Tables

Relative Humidity (%)

Dry-Bulb Temperature (°C)	Difference Between Wet-Bulb and Dry-Bulb Temperatures (C°)															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
-20	100	28														
-18	100	40														
-16	100	48														
-14	100	55	11													
-12	100	61	23													
-10	100	66	33													
-8	100	71	41	13												
-6	100	73	48	20												
-4	100	77	54	32	11											
-2	100	79	58	37	20	1										
0	100	81	63	45	28	11										
2	100	83	67	51	36	20	6									
4	100	85	70	56	42	27	14									
6	100	86	72	59	46	35	22	10								
8	100	87	74	62	51	39	28	17	6							
10	100	88	76	65	54	43	33	24	13	4						
12	100	88	78	67	57	48	38	28	19	10	2					
14	100	89	79	69	60	50	41	33	25	16	8	1				
16	100	90	80	71	62	54	45	37	29	21	14	7	1			
18	100	91	81	72	64	56	48	40	33	26	19	12	6			
20	100	91	82	74	66	58	51	44	36	30	23	17	11	5		
22	100	92	83	75	68	60	53	46	40	33	27	21	15	10	4	
24	100	92	84	76	69	62	55	49	42	36	30	25	20	14	9	4
26	100	92	85	77	70	64	57	51	45	39	34	28	23	18	13	9
28	100	93	86	78	71	65	59	53	47	42	36	31	26	21	17	12
30	100	93	86	79	72	66	61	55	49	44	39	34	29	25	20	16



**Answer Key**  
**met II practice website [Jan 16, 2014]**

1. 3

2. 4

3. 2

4. 3

5. 3

6. 2

7. 1

8. 4

9. 4

10. 2

11. 2

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