METEROLOGY TEST
SOLON INVITATIONAL
FEBRUARY 5, 2011

Answer Sheet

1. Maritime Tropical Air Mass (mT)
2. over the warm waters of the tropics and Gulf of Mexico
3. Continental Polar Air Mass (cP)
4. the snow covered regions of northern Canada
5. cool, slowly warming
6. steady rise
7. usually falling
8. poor
9. light to moderate
10. warm
11. high, remains steady
12. falling steadily
13. fair to poor
14. showers
15. anti-clockwise
16. clockwise
17. low
18. high
19. high
20. 1020
21. cold
22. warm
23. thunderstorm

24-26. cumulus stage (24): warm air rises (updraft) and condenses into a cumulus cloud; mature stage(25): cool dry air enters the cloud and pulls the heavy water downward (downdraft), making rain; cumulonimbus cloud has been formed because it has an updraft, downdraft, and rain; thunder and lightning; dissipating stage(26): downdrafts in the cloud dominate over the updraft; storms dies out with light rain

27. supercell thunderstorm

28-29. (28)along or ahead of cold fronts and drylines and (29)produce severe weather in the form of rainfall, strong winds, large hail, and lightning

30. b, warm updraft
31. c, cold downdraft
32. a, downburst
33. b, gust front
34. c, derecho
35. d, straight-line winds
36. b, sprites coincide with cloud-to-ground lightning
37. a, red L
38. polar jet streams
39. northeast trade winds
40. southeast tradewinds
41. b, when hail is 1 inch in diameter

METEROLOGY TEST
SOLON INVITATIONAL
FEBRUARY 5, 2011

42. d, low pressure center
43. cloudy weather and most likely precipitation
44. tornado
45. d, all of the above
46. b, watch
47. a, warning
48-49. (48)First, 2 masses of different temperatures and humidity meet. (49)Then warmer air is moved upward. This starts to spiral as it rises.
50. Cirrus
51. thin, wispy; ice crystals
52. fair weather
53. Cirrostratus
54. sheet-like, nearly transparent; ice crystals
55. warm, raining coming soon
56. Cumulonimbus
57. cotton balls; water droplets low and ice crystals high
58. thunderstorms
59. Nimbostratus
60. dark, low; water droplets
61. light to moderate precipitation
62. midlatitude cyclone
63. c, tropical cyclone
64. b, minutes to hours
65. cold dry air mass
66. warm moist air mass
67. warm front
68. cold front
69. a, moisture in the lower layers of the atmosphere
70. d, dry line thunderstorm
71. F0
72. F3
73. F1
74. F2
75. F4
76. F5
77-79. (77) cold and warm air masses meet in a front and they move parallel to it; (78) wave forms and warm air moves toward the pole and cold air moves toward the equator; low pressure develops; (79) cold front moves faster than the warm front and starts to take over; full development of an occluded front
80. convection currents
81. eye
82. cool dense air
83. wind and rain
84. warm moist air
85. 9-10
86. 7

METEROLOGY TEST
SOLON INVITATIONAL
FEBRUARY 5, 2011

87. 4-5
88. 2-3
89. counterclockwise
90. southeast
91. C3
92. C2
93. C5
94. C1
95. C4
96-100=tie breakers in order
96. squall lines
97. during the spring
98. along cold fronts
99. Hook echo
100. a thunderstorm is producing a circulation and possibly a tornado