Meteorology Practice Exam

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. In a volume of air near the earth's surface, ____ occupies 78 percent and ____ nearly 21 percent.
   a. nitrogen, oxygen
   b. hydrogen, oxygen
   c. oxygen, hydrogen
   d. nitrogen, water vapor
   e. hydrogen, helium

____ 2. The amount of force exerted over an area of surface is called:
   a. density.
   b. weight.
   c. temperature.
   d. pressure.

____ 3. Much of Tibet lies at altitudes over 18,000 feet where the pressure is about 500 mb. At such altitudes, the Tibetans are above roughly:
   a. 10 percent of the air molecules in the atmosphere.
   b. 25 percent of the air molecules in the atmosphere.
   c. 50 percent of the air molecules in the atmosphere.
   d. 75 percent of the air molecules in the atmosphere.
   e. 90 percent of the air molecules in the atmosphere.

____ 4. The planet with a strong greenhouse effect, whose surface temperature averages 480°C (900°F) is:
   a. Earth.
   b. Venus.
   c. Mars.
   d. Pluto.
   e. none of these

____ 5. In the stratosphere, the air temperature normally:
   a. decreases with increasing height.
   b. increases with increasing height.
   c. both increases and decreases depending on the season.
   d. cannot be measured.

____ 6. The most abundant gas in the stratosphere is:
   a. oxygen (O₂).
   b. nitrogen (N₂).
   c. carbon dioxide (CO₂).
   d. ozone (O₃).
   e. chlorofluorocarbons (CFCs).
7. Scientists are able to determine the air temperature in the thermosphere by:
   a. using radiosondes.
   b. using temperature probes in orbiting satellites.
   c. observing changes in satellite orbits.
   d. direct measurements in manned, high-altitude balloons.

8. The rate at which temperature decreases with increasing altitude is known as the:
   a. temperature slope.
   b. lapse rate.
   c. sounding.
   d. thermocline.

9. Meteorology is the study of:
   a. landforms.
   b. the oceans.
   c. the atmosphere.
   d. outer space.
   e. extraterrestrial meteoroids that enter the atmosphere.

10. Where cold surface air replaces warm air, the boundary separating the different bodies of air is:
    a. a parallel of latitude.
    b. a tornado.
    c. a cold front.
    d. a warm front.

11. The horizontal extent of the ozone hole can sometimes exceed the size of the Antarctic continent.
    a. true
    b. false

12. About ____ of the meteorologists and atmospheric scientists in the United States work in the field of weather forecasting.
    a. one-tenth
    b. one-half
    c. three-quarters
    d. nine-tenths

13. Meteorology is considered a branch of:
    a. mineralogical sciences.
    b. phenology.
    c. phrenology.
    d. atmospheric sciences.

14. Heat waves are generally considered to be little more than a nuisance and are not responsible for considerable loss of life.
    a. true
    b. false
15. Energy of motion is also known as:
   a. dynamic energy.
   b. kinetic energy.
   c. sensible heat energy.
   d. static energy.
   e. latent heat energy.

16. The heat energy released when water vapor changes to a liquid is called:
   a. latent heat of evaporation.
   b. latent heat of fusion.
   c. latent heat of fission.
   d. latent heat of condensation.

17. When water changes from a liquid to a vapor, we call this process:
   a. freezing.
   b. condensation.
   c. sublimation.
   d. deposition.
   e. evaporation.

18. The term "latent" means:
   a. late.
   b. hot.
   c. light.
   d. hidden.
   e. dense.

19. The processes of condensation and freezing:
   a. both release sensible heat into the environment.
   b. both absorb sensible heat from the environment.
   c. do not affect the temperature of their surroundings.
   d. do not involve energy transport.

20. The sun emits a maximum amount of radiation at wavelengths near _____, while the earth emits maximum radiation near wavelengths of _____.
   a. 0.5 micrometers, 30 micrometers
   b. 0.5 micrometers, 10 micrometers
   c. 10 micrometers, 30 micrometers
   d. 1 micrometer, 10 micrometers

21. Which of the following has a wavelength shorter than that of violet light?
   a. green light
   b. blue light
   c. infrared radiation
   d. red light
   e. ultraviolet radiation
22. At which temperature would the earth be radiating energy at the greatest rate or intensity?
   a. -5°F
   b. -40°F
   c. 60°F
   d. 32°F
   e. 105°F

23. If the earth's average surface temperature were to increase, the amount of radiation emitted from the earth's surface would ____, and the wavelength of peak emission would shift toward ____ wavelengths.
   a. increase; shorter
   b. increase; longer
   c. decrease; shorter
   d. decrease; longer

24. Of the gases listed below, which is NOT believed to be responsible for enhancing the earth's greenhouse effect?
   a. chlorofluorocarbons (CFCs)
   b. molecular oxygen (O₂)
   c. nitrous oxide (N₂O)
   d. carbon dioxide (CO₂)
   e. methane (CH₄)

25. An increase in albedo would be accompanied by ____ in radiative equilibrium temperature.
   a. an increase
   b. a decrease
   c. no change
   d. unstable oscillations

26. If the amount of energy lost by the earth to space each year were not approximately equal to that received,
   a. the atmosphere's average temperature would change.
   b. the length of the year would change.
   c. the sun's output would change.
   d. the mass of the atmosphere would change.

27. Charged particles from the sun that travel through space at high speeds are called:
   a. radiation.
   b. the aurora.
   c. solar wind.
   d. solar flares.

28. The aurora is produced by:
   a. reflections of sunlight by polar ice fields.
   b. fast-moving charged particles colliding with air molecules.
   c. burning oxygen caused by the intense sunlight at high altitude.
   d. the combination of molecular and atomic oxygen to form ozone.
   e. scattering of sunlight in the upper atmosphere.
29. In the figure below, energy is being transported ____.

![Diagram of air movement](image)

a. upward  

b. downward

30. Sunlight passes through a thicker portion of the atmosphere at:

a. sunrise.  
b. noon.  
c. sunset.  
d. night.  
e. both sunrise and sunset.

31. The geographical pattern of average air temperature near sea level is ____ homogeneous in the southern hemisphere as compared to the northern hemisphere.

a. less  
b. more

32. The main reason(s) for warm summers in middle latitudes is that:

a. the earth is closer to the sun in summer.  
b. the sun is higher in the sky and we receive more direct solar radiation.  
c. the days are longer.  
d. all of these  
e. b and c only

33. In July, at middle latitudes in the Northern Hemisphere, the day is ____ long and is ____ with each passing day.

a. less than 12 hours; getting longer  
b. less than 12 hours; getting shorter  
c. more than 12 hours; getting longer  
d. more than 12 hours; getting shorter

34. Assuming that the night will remain clear, calm, and unsaturated, the predicted minimum temperature is 32°F. Suddenly the wind speed increases and remains gusty throughout the night. The minimum temperature will most likely be:

a. about the same as predicted but will occur earlier in the night.  
b. higher than predicted due to the release of latent heat.  
c. much lower than predicted due to radiational cooling.  
d. higher than predicted due to mixing.

35. Two objects, A and B, have the same mass but the specific heat of A is larger than B. If both objects absorb equal amounts of energy,

a. A will become warmer than B.  
b. B will become warmer than A.  
c. both A and B will warm at the same rate.  
d. A will get warmer, but B will get colder.
36. The air temperature is 45°F, the wind is blowing at 30 MPH, and the wind chill temperature is 15°F. These conditions would be equivalent to:
   a. a 15°F air temperature and 0 MPH winds.
   b. a 30°F air temperature and 45 MPH winds.
   c. a 30°F air temperature and 15 MPH winds.
   d. a 15°F air temperature and 30 MPH winds.

37. More solar radiation is received at the:
   a. earth's surface.
   b. top of the atmosphere.
   c. north and south poles.

38. In the northern hemisphere, north-facing hillsides have a _____ growing season than south-facing hillsides.
   a. shorter
   b. longer

39. In the northern hemisphere, a solar panel should be placed on the side of the roof facing:
   a. east.
   b. west.
   c. north.
   d. south.

40. A strong radiation inversion is more likely to occur on a:
   a. warm, windy night.
   b. cool, windy night.
   c. rainy night with light winds.
   d. clear night with light winds.

41. When the air is saturated, which of the following statements is NOT correct?
   a. The air temperature equals the wet-bulb temperature.
   b. The relative humidity is 100 percent.
   c. The air temperature equals the dew point temperature.
   d. An increase in temperature will cause condensation to occur.
   e. The wet bulb temperature equals the dew point temperature.

42. If all the water vapor in the atmosphere were to condense and fall to the ground, the globe would be covered with about _____ of water.
   a. 1 millimeter
   b. 1 inch
   c. 1 foot
   d. 1 meter

43. The total mass of water vapor stored in the atmosphere at any moment is about _____ of the world's supply of precipitation.
   a. 1 day
   b. 1 week
   c. 1 month
   d. 1 year
44. Which of the following will increase in a rising parcel of air?
   a. saturation vapor pressure
   b. relative humidity
   c. mixing ratio
   d. air temperature
   e. none of these

45. If water vapor comprises 3.5 percent of an air parcel whose total pressure is 1,000 mb, the water vapor pressure would be:
   a. 1,035 mb.
   b. 35 mb.
   c. 350 mb.
   d. 965 mb.

46. When the air temperature is below freezing, the saturation vapor pressure over water is ____.
   a. equal to zero
   b. less than the saturation vapor pressure over ice
   c. greater than the saturation vapor pressure over ice
   d. equal to the saturation vapor pressure over ice

47. The percentage of water vapor present in the air compared to that required for saturation is the:
   a. mixing ratio.
   b. absolute humidity.
   c. dew point.
   d. relative humidity.
   e. specific humidity.

48. The time of day when the relative humidity reaches a maximum value is usually:
   a. at the time when the air temperature is highest
   b. in the middle of the afternoon
   c. at the time when the air temperature is lowest
   d. just before sunrise
   e. about midnight

49. Which of the following statements is not correct?
   a. The length of human hair changes as the relative humidity changes.
   b. During the winter, low relative humidity can irritate the mucus membranes in the nose and throat.
   c. The relative humidity is a measure of the air's actual water vapor content.
   d. A change in the air temperature can change the relative humidity.

50. The name given to a liquid drop of dew that freezes when the air temperature drops below freezing is:
   a. frost.
   b. black frost.
   c. hoarfrost.
   d. white frost.
   e. frozen dew.
51. Suppose it is a winter night and at about 11 p.m., the air cools to the dew-point temperature and a thick radiation fog develops. If the air continues to cool during the night, in 5 hours the dew point temperature will probably:
   a. decrease as the air becomes drier.
   b. decrease as the air becomes moister.
   c. increase as the air becomes drier.
   d. increase as the air becomes moister.

52. Frost typically forms on the inside of a windowpane (rather than the outside) because:
   a. the inside of the pane is colder than the outside.
   b. there is more water vapor touching the inside of the pane.
   c. there is less water vapor touching the inside of the pane.

53. Condensation nuclei may be:
   a. particles of dust.
   b. nitric acid particles.
   c. smoke from forest fires.
   d. salt from the ocean.
   e. all of these

54. Fog that forms off the coast of Newfoundland is mainly a form of:
   a. advection fog.
   b. frontal fog.
   c. steam fog.
   d. radiation fog.
   e. upslope fog.

55. Fog that most often forms as warm rain falls into a cold layer of surface air is called:
   a. radiation fog.
   b. evaporation (mixing) fog.
   c. advection fog.
   d. upslope fog.

56. Fog is a major hazard to aviation.
   a. true
   b. false

57. At which city might you be able to observe cirrus clouds at an altitude of 3,000 m (10,000 feet) above the surface?
   a. Barrow, Alaska
   b. Honolulu, Hawaii
   c. Miami, Florida
   d. Chicago, Illinois

58. A dim, "watery" sun visible through a gray sheet-like cloud layer is often a good indication of _____ clouds.
   a. stratocumulus
   b. cirrostratus
   c. cumulonimbus
   d. altostratus
   e. nimbostratus
59. Towering cumulus (cumulus congestus) would refer to which of the clouds sketched below?

a. a  
b. b  
c. c

60. Suppose two unsaturated air masses mix horizontally. The resulting mixture cannot possibly be saturated.
   a. true  
b. false

61. Typically, water vapor occupies about what percentage of the air's volume near the earth's surface?
   a. about 78 percent  
b. about 21 percent  
c. close to 10 percent  
d. less than 4 percent  
e. none of these

62. The unit of pressure most commonly found on a surface weather map is:
   a. inches of mercury (Hg).  
b. millibars or hectopascals.  
c. pounds per square inch.  
d. millimeters of mercury (Hg).

63. The gas responsible for the greenhouse effect on Venus is:
   a. carbon dioxide (CO₂).  
b. oxygen (O₂).  
c. ozone (O₃).  
d. nitrogen (N₂).  
e. water vapor (H₂O).

64. Carbon dioxide is a naturally-occurring component of the atmosphere.
   a. true  
b. false

65. The atmospheric layer in which we live is called the:
   a. troposphere.  
b. stratosphere.  
c. thermosphere.  
d. ionosphere.  
e. exosphere.
66. In the middle latitudes of the Northern Hemisphere, surface winds tend to blow ____ and ____ around an area of surface low pressure.
   a. clockwise; inward
   b. clockwise; outward
   c. counterclockwise; inward
   d. counterclockwise; outward

67. A change of one degree on the Celsius scale is ____ a change of one degree on the Fahrenheit scale.
   a. equal to
   b. larger than
   c. smaller than
   d. is in the opposite direction of

68. The temperature scale where 0° represents freezing and 100° boiling is called:
   a. Fahrenheit.
   b. Celsius.
   c. Kelvin.
   d. absolute.

69. The transfer of heat by molecule-to-molecule contact is:
   a. conduction.
   b. convection.
   c. radiation.
   d. ultrasonic.

70. How do red and blue light differ?
   a. Blue light has a higher speed of propagation.
   b. The wavelength of red light is longer.
   c. Red light has a higher intensity.
   d. Red and blue light have different directions of polarization.

71. Solar radiation reaches the earth's surface as:
   a. visible radiation only.
   b. ultraviolet radiation only.
   c. infrared radiation only.
   d. visible and infrared radiation only.
   e. ultraviolet, visible, and infrared radiation.

72. The earth emits radiation with greatest intensity at:
   a. infrared wavelengths.
   b. radio wavelengths.
   c. visible wavelengths.
   d. ultraviolet wavelengths.

73. The earth's atmospheric window is in the:
   a. ultraviolet region.
   b. visible region.
   c. infrared region.
   d. polar regions.
74. Suppose last night was clear and calm. Tonight low clouds will be present. From this you would conclude that tonight's minimum temperature will be:
   a. higher than last night's minimum temperature.
   b. lower than last night's minimum temperature.
   c. the same as last night's minimum temperature.
   d. above freezing.

75. The combined albedo of the earth and the atmosphere is approximately ____ percent.
   a. 4
   b. 10
   c. 30
   d. 50
   e. 90

76. Sunlight that bounces off a surface is said to be ____ from the surface.
   a. radiated
   b. absorbed
   c. emitted
   d. reflected

77. The earth's radiative equilibrium temperature is:
   a. the temperature at which the earth is absorbing solar radiation and emitting infrared radiation at equal rates.
   b. the temperature at which the earth is radiating energy at maximum intensity.
   c. the average temperature the earth must maintain to prevent the oceans from freezing solid.
   d. the temperature at which rates of evaporation and condensation on the earth are in balance.

78. During the course of a year, the sun will disappear from view near the North Pole on what date?
   a. June 21
   b. September 23
   c. December 23
   d. January 1
   e. March 21

79. The maximum in daytime surface temperature typically occurs ____ the earth receives its most intense solar radiation.
   a. before
   b. after
   c. exactly when

80. To protect fruit trees from frost, it is important to keep the air as still as possible.
   a. true
   b. false
81. At the North Pole the sun will rise above the horizon on ____ and set below the horizon on ____.
   a. June 22; September 23
   b. September 23; December 22
   c. March 21; September 23
   d. June 22; December 22
   e. March 21; December 22

82. The earth is tilted at an angle of 23.5° with respect to the plane of its orbit around the sun. If the amount of tilt were increased to 40°, we would expect in middle latitudes:
   a. hotter summers and colder winters than at present.
   b. cooler summers and milder winters than at present.
   c. hotter summers and milder winters than at present.
   d. cooler summers and colder winters than at present.
   e. no appreciable change from present conditions.

83. The term "normal" refers to weather data averaged over:
   a. at least a day.
   b. several months.
   c. one year.
   d. thirty years.

84. The greatest variation in daily temperature usually occurs:
   a. at the ground.
   b. about 5 feet above the ground.
   c. at the top of a high-rise apartment complex.
   d. at the level where thermals stop rising.

85. In most areas, the warmest time of the day about 5 feet above the ground occurs:
   a. around noon.
   b. in the afternoon between 3 and 5 p.m.
   c. in the early evening after 6 p.m.
   d. just before the sun sets.

86. Which of the following can be used as a method of protecting an orchard from damaging low temperatures during a radiation inversion?
   a. orchard heaters
   b. wind machines
   c. irrigation (cover the area with water)
   d. all of these

87. When a liquid thermometer is held in direct sunlight,
   a. it will accurately measure the air temperature.
   b. it will measure a much higher temperature than that of the air.
   c. it will measure a much lower temperature than that of the air.
   d. it will measure the temperature of the sun rather than the air.
88. An ideal shelter for housing a temperature-measurement instrument should be:
   a. white.
   b. black.
   c. in the shade.
   d. both white and in the shade.
   e. both black and in the shade.

89. The relative humidity is often near 100 percent in the polar regions.
   a. true
   b. false

90. If the air temperature remains constant, evaporating water into the air will ____ the dew point and ____ the relative humidity.
   a. increase; increase
   b. increase; decrease
   c. decrease; increase
   d. decrease; decrease

91. The temperature to which air must be cooled in order to become saturated is the:
   a. minimum temperature.
   b. dew point temperature.
   c. wet-bulb temperature.
   d. freezing point.

92. Which of the following is the BEST indicator of the actual amount of water vapor in the air?
   a. air temperature
   b. saturation vapor pressure
   c. relative humidity
   d. dew point temperature

93. The lowest temperature that can be attained by evaporating water into the air is known as the:
   a. heat index.
   b. minimum temperature.
   c. wet-bulb temperature.
   d. frost point.
   e. wind chill temperature.

94. Frost forms when:
   a. objects on the ground cool below the dew point temperature.
   b. the dew point is 32°F or below.
   c. water vapor changes into ice without first becoming a liquid.
   d. all of the above

95. Which of the following statements is/are correct?
   a. The largest concentration of condensation nuclei are usually observed near the Earth's surface.
   b. Wet haze restricts visibility more than dry haze.
   c. Fog is actually a cloud resting on the ground.
   d. With the same water vapor content, fog that forms in dirty air is usually thicker than fog that forms in cleaner air.
   e. All of these are correct.
96. Which statement(s) below is/are correct?
   a. Valleys are more susceptible to radiation fog than hill tops.
   b. Without the summer fog along the coast of California, redwoods would not grow well there.
   c. Fog can be composed of ice crystals.
   d. All of the above are correct.

97. Which association below is not correct?
   a. cumulus congestus - anvil top
   b. cumulus - fair weather cumulus
   c. altocumulus castellanus - resemble "little castles"
   d. stratus fractus - scud
   e. cumulonimbus - thunderstorm clouds

98. In middle latitudes, which cloud will have the lowest base?
   a. cirrostratus
   b. stratocumulus
   c. altocumulus
   d. cirrus

99. At middle latitudes, the base of an altostratus or altocumulus cloud would generally be found between:
   a. 200 and 6,500 feet.
   b. 6,500 and 23,000 feet.
   c. 23,000 and 43,000 feet.
   d. above 43,000 feet.

100. When clouds are viewed near the horizon, the individual cloud elements usually:
    a. appear closer together than is actually the case.
    b. appear farther apart than is actually the case.
    c. appear lighter in color than is actually the case.
    d. appear to have more vertical development than is actually the case.

101. Infrared and visible satellite images might provide:
     a. a way of determining cloud thickness and altitude.
     b. a way of distinguishing between wet and dry clouds.
     c. a way of identifying clouds suitable for cloud seeding.
     d. a way of distinguishing between "new" and "old" clouds.

102. Stratus clouds are typically puffy and form by convection.
    a. true
    b. false

Essay

103. In the discussion of the earth's annual energy balance, we saw that the earth absorbed approximately 51 units of solar energy but emitted 117 units of infrared energy. What prevents the earth from getting colder and colder?
104. Several of the planets in our solar system are further from the sun and cooler than the earth. Do they emit electromagnetic radiation? Why are we able to see the planets in the sky at night?

105. Many people will blow on a bowl of hot soup to try to cool it. In your view, what are the two most important heat transport processes being used to cool the soup?

106. In what ways is the atmospheric greenhouse different from an agricultural greenhouse?

107. How is it possible for the ground to become warmer than the air just above it during the day and then turn colder than the air above it during the night?

108. Would hazy conditions generally indicate dry or humid conditions?

109. What kinds of information about clouds could you hope to determine using infrared and visible satellite photographs?

110. Under what circumstances might a person breathe stratospheric air? How often is it likely to happen in a student's lifetime?

111. What is meant by the terms water vapor saturation and saturation vapor pressure? Why does the saturation vapor pressure increase with increasing air temperature?
Meteorology Practice Exam
Answer Section

MULTIPLE CHOICE

1. ANS: A    PTS: 1
2. ANS: D    PTS: 1
3. ANS: C    PTS: 1
4. ANS: B    PTS: 1
5. ANS: B    PTS: 1
6. ANS: B    PTS: 1
7. ANS: C    PTS: 1
8. ANS: B    PTS: 1
9. ANS: C    PTS: 1
10. ANS: C   PTS: 1
11. ANS: A   PTS: 1
12. ANS: B   PTS: 1
13. ANS: D   PTS: 1
14. ANS: B   PTS: 1
15. ANS: B   PTS: 1
16. ANS: D   PTS: 1
17. ANS: E   PTS: 1
18. ANS: D   PTS: 1
19. ANS: A   PTS: 1
20. ANS: B   PTS: 1
21. ANS: E   PTS: 1
22. ANS: E   PTS: 1
23. ANS: A   PTS: 1
24. ANS: B   PTS: 1
25. ANS: B   PTS: 1
26. ANS: A   PTS: 1
27. ANS: C   PTS: 1
28. ANS: B   PTS: 1
29. ANS: A   PTS: 1
30. ANS: E   PTS: 1
31. ANS: B   PTS: 1
32. ANS: E   PTS: 1
33. ANS: D   PTS: 1
34. ANS: D   PTS: 1
35. ANS: B   PTS: 1
36. ANS: A   PTS: 1
37. ANS: B   PTS: 1
38. ANS: A   PTS: 1
39. ANS: D   PTS: 1
40. ANS: D   PTS: 1
41. ANS: D     PTS: 1
42. ANS: B     PTS: 1
43. ANS: B     PTS: 1
44. ANS: B     PTS: 1
45. ANS: B     PTS: 1
46. ANS: C     PTS: 1
47. ANS: D     PTS: 1
48. ANS: C     PTS: 1
49. ANS: C     PTS: 1
50. ANS: E     PTS: 1
51. ANS: A     PTS: 1
52. ANS: B     PTS: 1
53. ANS: E     PTS: 1
54. ANS: A     PTS: 1
55. ANS: B     PTS: 1
56. ANS: A     PTS: 1
57. ANS: A     PTS: 1
58. ANS: D     PTS: 1
59. ANS: B     PTS: 1
60. ANS: B     PTS: 1
61. ANS: D     PTS: 1
62. ANS: B     PTS: 1
63. ANS: A     PTS: 1
64. ANS: A     PTS: 1
65. ANS: A     PTS: 1
66. ANS: C     PTS: 1
67. ANS: B     PTS: 1
68. ANS: B     PTS: 1
69. ANS: A     PTS: 1
70. ANS: B     PTS: 1
71. ANS: E     PTS: 1
72. ANS: A     PTS: 1
73. ANS: C     PTS: 1
74. ANS: A     PTS: 1
75. ANS: C     PTS: 1
76. ANS: D     PTS: 1
77. ANS: A     PTS: 1
78. ANS: B     PTS: 1
79. ANS: B     PTS: 1
80. ANS: B     PTS: 1
81. ANS: C     PTS: 1
82. ANS: A     PTS: 1
83. ANS: D     PTS: 1
84. ANS: A     PTS: 1
85. ANS: B     PTS: 1
86. ANS: D     PTS: 1
87. ANS: B  PTS: 1
88. ANS: D  PTS: 1
89. ANS: A  PTS: 1
90. ANS: A  PTS: 1
91. ANS: B  PTS: 1
92. ANS: D  PTS: 1
93. ANS: C  PTS: 1
94. ANS: D  PTS: 1
95. ANS: E  PTS: 1
96. ANS: D  PTS: 1
97. ANS: A  PTS: 1
98. ANS: B  PTS: 1
99. ANS: B  PTS: 1
100. ANS: A  PTS: 1
101. ANS: A  PTS: 1
102. ANS: B  PTS: 1

ESSAY

103. ANS:
   Answer not provided.
   
   PTS: 1

104. ANS:
   Answer not provided.
   
   PTS: 1

105. ANS:
   Answer not provided.
   
   PTS: 1

106. ANS:
   Answer not provided.
   
   PTS: 1

107. ANS:
   Answer not provided.
   
   PTS: 1

108. ANS:
   Answer not provided.
   
   PTS: 1
109. **ANS:**
   Answer not provided.

   **PTS:** 1

110. **ANS:**
   Answer not provided.

   **PTS:** 1

111. **ANS:**
   Answer not provided.

   **PTS:** 1