Meteorology Pretest

Clouds, Weather Elements and Instrumentation

Multiple Choice

1. The _____ instrument contains a liquid of low density such as alcohol.
a) maximum thermometer
b) minimum thermometer
c) bimetal strip
d) thermistor
e) none of these

2. A small dumbbell-shaped index is part of the
a) maximum thermometer
b) minimum thermometer
c) bimetal strip
d) thermistor
e) none of these

3. A constriction in the glass bore is characteristic of the
a) maximum thermometer
b) minimum thermometer
c) bimetal strip
d) thermistor
e) none of these

4. The minimum temperature usually occurs near sunrise because
a) sun angle is lowest then
b) atmospheric path is longest
c) earth experiences a net loss of radiation until then
d) reflection of solar radiation is a maximum

5. A temperature CHANGE of 1^{ø}C is how large of a change in F^{ø}?
a) 1.8
b) 0.9
c) 0.56
d) 32
e) none of these

6. The daily maximum temperature occurs at the time
a) of maximum incoming radiation
b) when incoming radiation first exceeds outgoing radiation.
c) when outgoing radiation equals incoming.
d) near 12:00 noon.

7. Which temperature scale was developed first?
a) Fahrenheit
b) Celsius
c) Kelvin
d) All three were proposed within a year of each other.

8. If water freezes at a temperature of 273^{o}K, it must boil at what temperature?
a) 0^{o}K
b) 100^{o}K
c) 212^{o}K
d) 373^{o}K
e) 485^{o}K

9. When using a psychrometer, if the two temperatures read nearly the same you can conclude that:
a) your instrument reading is accurate
b) a change in temperature is likely
c) the dew point temperature is very low
d) the air has a high relative humidity
e) none of the above

10. Clouds are classified and named according to their altitude and
a) water content
b) temperature
c) size of droplets in the cloud
d) form or appearance
e) amount of precipitation produced

11. The intensity of rainfall can be calculated with data from a
a) tipping-bucket gauge
b) weighing gauge
c) standard rain gauge
d) all of the above (a, b, and c)
e) both a and b, but not c

12. A(n) _____ magnifies rainfall ten times.
a) tipping-bucket gauge
b) weighing gauge
c) standard rain gauge
d) all of the above (a, b, and c)
e) both a and b, but not c

13. A(n) _____ consists of two compartments each capable of holding 0.025 cm of water.
a) tipping-bucket gauge
b) weighing gauge
c) standard rain gauge
d) all of the above (a, b, and c)
e) both a and b, but not c

14. A halo around the sun or moon indicates the cloud _____ is present.
a) cirrostratus
b) cumulonimbus
c) altostratus
d) cirrus
e) nimbostratus

15. Which type of cloud is most likely to form a halo around the sun or moon?
a) cirrus
b) cirrostratus
c) cirrocumulus
d) altocumulus
e) altostratus

16. An altimeter is an adaptation of the:
a) anemometer
b) mercurial barometer
c) millibar
d) aneroid barometer
e) none of these

17. Conventional radar measures
a) raindrop size
b) raindrop motion
c) raindrop and snowflake motion
d) rainfall intensity
e) cloud droplet numbers

18. Why are some satellites described as being stationary?
a) they have no orbital motion
b) they can only observe stationary weather systems
c) their altitude never changes
d) their orbital motion matches the earth's rotation
e) they orbit over the earth's poles

True/False

19. The unit of 1 $F^{ø}$ is smaller than 1 $C^{ø}$.

20. On the Kelvin temperature scale, the steam point is set at $212^{ø}$.

21. All satellites have the disadvantage that their orbits place them very far (over 20,000 miles) above the earth.

22. Satellites can only provide photographs; no measurements of properties such as temperature are possible.

End

ANSWER KEY FOR TEST

1. b
2. b
3. a
4. c
5. a
6. c
7. (a)
8. (d)
9. d
10. d
11. e
12. c
13. a
14. a
15. (b)
16. d
17. d
18. d
19. True
20. False
21. False
22. False