**Chapter 9**

**Remotely Sensed Images from Above**

1. At its most basic, remote sensing is the process of acquiring data without being in direct contact with the subject or item being studied.

a. True

b. False

2. In remote sensing, the data being acquired is information about the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ being reflected off a target.

a. infrared energy

b. set of shadows

c. light energy

d. speed of sound

3. Who is credited with taking the first aerial photograph?

a. Joseph Niepce

b. Gaspard-Felix Tournachon

c. George Lawrence

d. the Wright Brothers

4. The earliest aerial photographs were taken from which kind of aircraft?

a. airplanes

b. kites

c. helicopters

d. balloons

5. The city photographed from the air by James W. Black was:

a. New York.

b. Chicago.

c. Boston.

d. Paris.

6. The cameraman who took aerial photos of San Francisco after the 1906 earthquake was:

a. Wilbur Wright.

b. Joseph Niepce.

c. Sir Edmund Hilary.

d. George Lawrence.

7. The U-2 plane was used mostly for:

a. land surveying.

b. spying.

c. cartography.

d. irrigation planning.

8. Today, most aerial photography is taken by humans in orbiting satellites.

a. True

b. False

9. Aerial photography is used extensively by state and local governments as well as private companies.

a. True

b. False

10. Suppose you are taking a photo from the air with the camera pointing straight down. The point directly under the camera is the:

a. CIR.

b. panchrome.

c. apex.

d. nadir.

11. Color and panchromatic are antonyms.

a. True

b. False

12. In a color infrared photo, red reflection is displayed as:

a. green.

b. blue.

c. black.

d. red.

13. In a color infrared photo, green reflection is displayed as:

a. green.

b. blue.

c. black.

d. red.

14. Blue reflections in CIR are displayed as red.

a. True

b. False

15. The tendency for tall objects in remotely sensed images to lean away from a center point and toward the edges of the image is:

a. orthorectification.

b. visual skewing.

c. relief displacement.

d. panchromatic distortion.

16. Regular aerial photos have uniform scale.

a. True

b. False

17. An orthophoto can be accurately used as a map.

a. True

b. False

18. In which type of photo is the camera tilted at an angle rather than positioned directly at the nadir?

a. DOQ

b. DOQQ

c. orthophoto

d. oblique photo

19. Which is NOT a component of visual image interpretation?

a. shape

b. tone

c. shadow

d. aspect

20. The physical arrangement of objects in an image is its:

a. size.

b. shadow.

c. pattern.

d. association.

21. Suppose you want to relate an object in an image to other nearby features in the image. Which of the following would you use?

a. size.

b. shadow.

c. pattern.

d. association.

22. The dark shapes cast by an object with a source of light shining on it is:

a. tone.

b. shadow.

c. pattern.

d. association.

23. The term used to describe the particular grayscale or intensity of a particular color of objects in an image is:

a. texture.

b. RBG color ramp.

c. tone.

d. association.

24. Grayscale contains no red, green, or blue.

a. True

b. False

25. Which common object, about 15 feet in length, can help you determine the sizes of other objects in a remotely sensed image?

a. a car

b. a telephone pole

c. the distance between two bases in a baseball diamond

d. the distance between goalposts in a football field

26. Photogrammetry is the process of making measurements using aerial photos.

a. True

b. False

27. Suppose the length of a road is shown as 3 units in a scale of 1:100, where the unit used is miles. How long is the road?

a. 33 1/3 miles

b. 300 miles

c. 150 miles

d. 3 miles

28. Suppose photo distance (PD) is 6 inches and ground distance (GD) is 24,000 inches. What is the representative fraction?

a. 3/12

b. 2/180

c. 1/1200

d. 1/4000

29. The trigonometric function used to calculate the height of a building is:

a. sine.

b. cosine.

c. tangent.

d. secant.

30. To find the height of an object based on its shadow, the object must be straight up and down while casting a full shadow on level ground.

a. True

b. False