Test Bank for McKnight's Physical Geography 13th Edition by Hess

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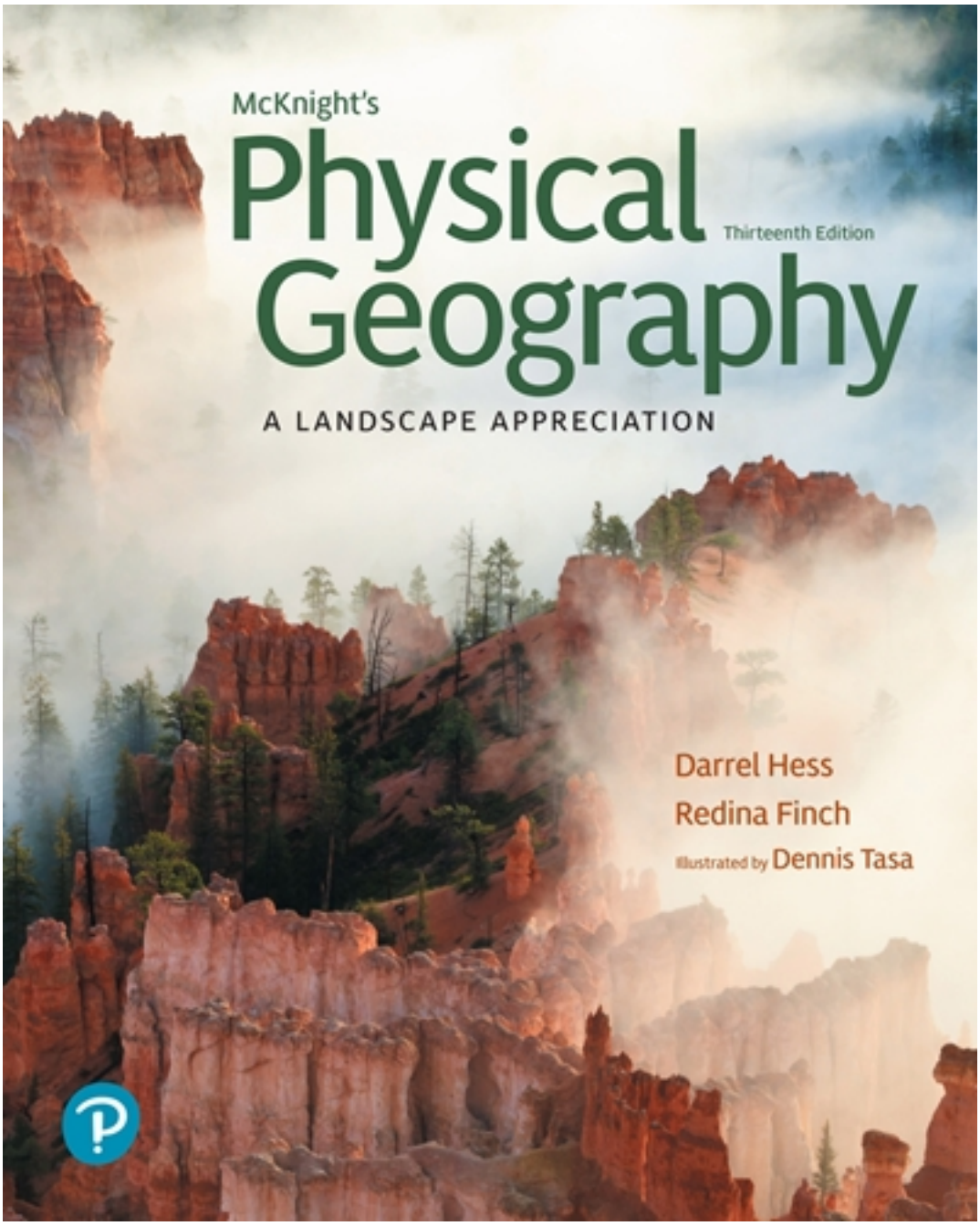

Test Bank

Physical Geography: A Landscape Appreciation, 13e **(Hess)**
Chapter 2 Portraying Earth

1) By far, the greatest use of thermal infrared scanning systems has been _____.
A) with lidar
B) onboard weather satellites
C) at the sea bottom
D) in aerial photography
E) exploring the moon
Answer: B
Diff: 1
Topic/Section: Thermal Infrared Sensing
Bloom's Taxonomy: 2. Understand

2) The modernization of the U.S. GPS to be exactly compatible with the systems of other countries _____.
A) is now completed
B) will be so efficient so only two satellites are needed
C) will not use satellites
D) is scheduled to be completed in the 2030s
E) has been scrapped
Answer: E
Diff: 1
Topic/Section: GNSS-Global Navigational Satellite System
Bloom's Taxonomy: 2. Understand

3) Which projection is produced by projecting the markings of a center-lit globe onto a flat piece of paper that is tangent to the globe at one point? That point is usually the North or South Pole.
A) Mercator
B) Denali
C) Cylindrical
D) Equal area
E) Planar
Answer: E
Diff: 2
Topic/Section: Planar Projections
Bloom's Taxonomy: 1. Remember

4) Because of the great precision of the technology, GPS output is usually provided in _____.
A) time units
B) decimal units
C) degrees, minutes, and seconds
D) radians
E) meters
Answer: B
Diff: 1
Topic/Section: GNSS-Global Navigational Satellite System
Bloom's Taxonomy: 2. Understand

5) Using GPS technology, the three-dimensional determination of a location on Earth's surface is achieved through _____.
A) dead reckoning
B) triangulation
C) surveying
D) trilateration
E) satellite observation of moon and star positions
Answer: D
Diff: 2
Topic/Section: GNSS-Global Navigational Satellite System
Bloom's Taxonomy: 2. Understand

6) "WAAS" is an acronym for a system:
A) that increases the accuracy of instrument-based flight approaches.
B) that is a type of weather radar.
C) monitoring slight changes in Earth plate movements.
D) which will be used to shoot down enemy missiles.
E) storing and displaying antique aerial photographs.
Answer: A
Diff: 2
Topic/Section: GNSS-Global Navigational Satellite System
Bloom's Taxonomy: 2. Understand

7) Use of lidar is a remote sensing technique involving the use of _____.
A) sound
B) radar
C) thermal infrared wavelengths
D) ultraviolet wavelengths
E) light
Answer: E
Diff: 2
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 2. Understand

8) Commercial satellites such as GeoEye, SPOT, and Worldview have the common characteristics that they produce _____ images compared to government-operated satellites.
A) poor quality
B) more black and white
C) higher resolution
D) free
E) photographic film-based images
Answer: B
Diff: 2
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate

9) Mt. Rainier National Park is in the Cascade Range in Washington State. The park is spectacular because Mt. Rainier is _____.
A) the tallest mountain in the United States
B) a glaciated volcano
C) the driest place in the United States
D) accessible by a motor road to the top
E) the largest national park in the United States
Answer: B
Diff: 2
Topic/Section: Mount Rainier
Bloom's Taxonomy: 1. Remember

10) Geographers use different kinds of maps to study different aspects of the environment. Which kind of map might a geographer use to study Mt. Rainier National Park?
A) A Lidar image showing ice
B) A precipitation map showing areas of greatest snowfall
C) A geologic map
D) A map of recent earthquakes
E) All of these types
Answer: A
Diff: 2
Topic/Section: Mount Rainier
Bloom's Taxonomy: 2. Understand

11) A standard parallel on a map:
A) is used in cylindrical projections.
B) could be the Equator on some maps.
C) is tangent to the globe.
D) could be placed at any latitude.
E) is correctly described by all these choices.
Answer: E
Diff: 3
Topic/Section: Cylindrical Projections
Bloom's Taxonomy: 2. Understand

12) A(n) _____ projection produces, roughly, a football-shaped map.
A) pseudocylindrical
B) interrupted
C) Mercator
D) loxodrome
E) planar
Answer: E
Diff: 3
Topic/Section: Pseudocylindrical Projections
Bloom's Taxonomy: 2. Understand

13) A loxodrome is a line of constant bearing on a map; it is also known as a _____.
A) tangency
B) isogonic line
C) ocean line
D) rhumb line
E) continental line
Answer: E
Diff: 1
Topic/Section: Cylindrical Projections
Bloom's Taxonomy: 1. Remember

14) The U.S. Geopositioning System is one of a number of other worldwide systems collectively known as _____.

A) GIS
B) GNSS
C) the Digital Elevation Model System
D) Orthophotomaps
E) the Universal Time System
Answer: B
Diff: 1
Topic/Section: GNSS-Global Navigational Satellite System
Bloom's Taxonomy: 1. Remember

15) Which of the following specifically refers to the spatial matching of dataset layers done with GIS?
A) Overlay analysis
B) Photogrammetry
C) Orthophoto mapping
D) Computing
E) Modeling
Answer: A
Diff: 1
Topic/Section: Overlay Analysis
Bloom's Taxonomy: 1. Remember

16) What are the characteristics of a compromise map projection?
Answer: Because both conformality and equivalence are impossible on a single map, cartographers frequently create maps that have both reasonable shapes and reasonably accurate areas. This is a compromise that creates suitable map accuracy for many purposes.
Diff: 2
Topic/Section: Map Projections
Bloom's Taxonomy: 2. Understand

17) Las Vegas and Dubai are featured on the "Growing a City in the Desert" page in the textbook. Why are these cities especially sensitive to environmental concerns and how can geospatial technologies help make these places sustainable?
Answer: Deserts are difficult settings so that large cities must have reliable water sources for now and the future. It is clear that growth must proceed in a planned way so that city infrastructure will not collapse. Geospatial technologies allow planners to see the "big picture" of urban growth. In these desert cities, a spatial view of the expansion and relation to water resources and other features can help point a city in a way to maximize use of the local conditions.
Diff: 3
Topic/Section: Growing a City in the Desert
Bloom's Taxonomy: 3. Apply

18) Why is GIS so crucial for decision making in modern cities?
Answer: Cities have large environmental and social problems that interact in very complex ways. In bringing together various datasets in map form and overlaying them in map forms, spatial relationships become obvious. Planners can use the maps for problem management or prediction by relating the layers in numerical models. Such models can be used to predict patterns of the future.
Diff: 2
Topic/Section: GIS for Geographic Decision-making
Bloom's Taxonomy: 3. Apply

19) A disadvantage of globes compared to maps is that globes are NOT _____.
A) conformal
B) accurate
C) suitable for use in class
D) equivalent
E) as portable
Answer: E
Diff: 1
Topic/Section: Maps and Globes
Bloom's Taxonomy: 1. Remember

20) A map made to show the distribution of one or more phenomenon is a(n) _____ map.
A) conic
B) isoline
C) equivalent
D) compromise
E) thematic
Answer: E
Diff: 1
Topic/Section: Maps
Bloom's Taxonomy: 1. Remember

21) The relationship between the map distance and the corresponding distance on the ground is known as the _____.
A) vector
B) azimuth
C) map quotient
D) loxodrome
E) scale
Answer: E
Diff: 1
Topic/Section: Map Scale
Bloom's Taxonomy: 1. Remember

22) "Scale" relates _____ to _____.
A) Earth distance, Earth distance
B) map distance, map distance
C) map distance, Earth distance
D) Earth distance, map distortion
E) map distortion, map distance
Answer: C
Diff: 1
Topic/Section: Map Scale
Bloom's Taxonomy: 1. Remember

23) The largest scale among the following representative fractions is _____.
A) 1:100,000
B) 1:1,000,000
C) 1:24,000
D) 1:10,000
E) 1:50,000
Answer: D
Diff: 2
Topic/Section: Large-Scale and Small-Scale Maps
Bloom's Taxonomy: 3. Apply

24) A(n) _____ scale remains correct even if the map is enlarged or reduced when reproduced.
A) isogonic
B) large
C) graphic
D) representative fraction
E) color
Answer: C
Diff: 3
Topic/Section: Map Scale
Bloom's Taxonomy: 5. Evaluate

25) The smallest scale of the following is _____.
A) 1:100,000
B) 1:200,000
C) 1:500,000
D) 1:750,000
E) 1:900,000
Answer: E
Diff: 2
Topic/Section: Large-Scale and Small-Scale Maps
Bloom's Taxonomy: 3. Apply

26) All map projections have this in common.
A) Small scale
B) Some distortion
C) Equivalence
D) Conformality
E) Perfect portrayal of the globe
Answer: B
Diff: 1
Topic/Section: Map Projections
Bloom's Taxonomy: 1. Remember

27) Conformal maps greatly distort _____ of continents in higher latitudes.
A) shapes
B) sizes
C) the number
D) the latitude
E) the longitude
Answer: B
Diff: 2
Topic/Section: Map Projections
Bloom's Taxonomy: 2. Understand

28) Every map projection consists of an orderly arrangement of _____.
A) scale
B) the geographic grid
C) legend
D) title
E) interruptions
Answer: B
Diff: 1
Topic/Section: Map Projections
Bloom's Taxonomy: 1. Remember

29) A(n) _____ is a line joining points of equal magnetic declination.
A) contour line
B) isohyet
C) isotherm
D) isomag
E) isogonic line
Answer: E
Diff: 1
Topic/Section: Map Projections
Bloom's Taxonomy: 2. Understand

30) Most of the maps drawn on _____ projections are for an optimal portrayal of worldwide distributions.

A) equivalent
B) conformal
C) conic
D) azimuthal
E) gnomonic
Answer: A
Diff: 2
Topic/Section: Map Projections
Bloom's Taxonomy: 1. Remember

31) You wish to navigate your yacht from Europe to the United States. Which type of map projection would be most useful?
A) Conic
B) Mercator
C) Interrupted
D) Equivalent
E) Cylindrical
Answer: B
Diff: 3
Topic/Section: Map Projections
Bloom's Taxonomy: 3. Apply

32) Which of the following map projections is impossible to construct?
A) Mercator
B) Conic
C) Cylindrical
D) Equivalent
E) A projection without distortion
Answer: E
Diff: 2
Topic/Section: Map Projections
Bloom's Taxonomy: 5. Evaluate

33) One difference between any two different map projections must always be _____.
A) scale
B) how the geographic grid is arranged
C) the number of degrees from the Equator to the North Pole
D) how accurately shapes are portrayed
E) how accurately relative sizes are portrayed
Answer: B
Diff: 3
Topic/Section: Map Projections
Bloom's Taxonomy: 5. Evaluate

34) _____ is the "major dilemma" of mapmaking explained by the text.
A) Conformality versus scale

B) Scale versus equivalence
C) Equivalence versus conformality
D) Conic versus azimuthal projections
E) The inclusion of too much information on a map
Answer: C
Diff: 1
Topic/Section: Map Properties
Bloom's Taxonomy: 2. Understand

35) The property of equivalence portrays accurate size although it _____.
A) bends parallels
B) renders the poles as lines
C) stretches the circle of tangency
D) distorts shapes
E) all of the above
Answer: D
Diff: 2
Topic/Section: Map Properties
Bloom's Taxonomy: 4. Analyze

36) Which map-making method would be used to minimize distortion of continents on a world map?
A) A perfectly equivalent projection
B) A large scale
C) A conic projection
D) An interrupted projection
E) A Mercator projection
Answer: D
Diff: 3
Topic/Section: Map Properties
Bloom's Taxonomy: 5. Evaluate

37) The most famous and most widely used of all the map projections is the _____ projection.
A) gnomonic
B) Mercator
C) polyconic
D) sinusoidal
E) Mollweide
Answer: B
Diff: 1
Topic/Section: Cylindrical Projections
Bloom's Taxonomy: 2. Understand

38) A loxodrome is another term for _____.
A) rhumb line
B) X-ray
C) gnomon
D) thermal scanner
E) meridian
Answer: A
Diff: 1
Topic/Section: Cylindrical Projections
Bloom's Taxonomy: 1. Remember

39) In the Mercator projection, which piece of the Earth is portrayed ridiculously large in comparison to its actual size?
A) Low-latitude locations
B) Greenland
C) Brazil
D) The continental United States
E) The continent of Africa
Answer: B
Diff: 1
Topic/Section: Cylindrical Projections
Bloom's Taxonomy: 2. Understand

40) Misuse of the Mercator projection is a result of _____.
A) inaccurate projection of latitude and longitude
B) the Cold War
C) the fact that it is so old
D) the curved loxodromes
E) latitudinal differences in scale
Answer: E
Diff: 3
Topic/Section: Cylindrical Projections
Bloom's Taxonomy: 5. Evaluate

41) The main purpose of the interruption of projections is _____.
A) to improve portrayal of the oceans
B) to provide a stereoscopic view
C) to make maps compatible with air photos
D) to show the continents in an equal area rendition
E) to save ink during printing
Answer: D
Diff: 2
Topic/Section: Pseudocylindrical Projections
Bloom's Taxonomy: 2. Understand

42) If one wished to produce a map which focused on the continents and showed little of the world's oceans, then she/he should use a(n) _____ projection.

A) large scale
B) equal area
C) interrupted
D) conical
E) azimuthal
Answer: C
Diff: 2
Topic/Section: Pseudocylindrical Projections
Bloom's Taxonomy: 3. Apply

43) Together, title, date, and legend on a map are known as _____.
A) marginal information
B) necessary information
C) cartographic license
D) map essentials
E) optional pieces
Answer: D
Diff: 1
Topic/Section: Map Essentials
Bloom's Taxonomy: 2. Understand

44) Which of the following should contain a brief summary of the map's content or purpose?
A) The title
B) The legend
C) The scale
D) The area within the map boundaries
E) The data source
Answer: A
Diff: 2
Topic/Section: Map Essentials
Bloom's Taxonomy: 5. Evaluate

45) The explanations of symbols used on a map should be contained in _____.
A) the title
B) the scale
C) the legend
D) the space under the north arrow
E) the data source
Answer: C
Diff: 1
Topic/Section: Map Essentials
Bloom's Taxonomy: 5. Evaluate

46) A(n) _____ is the generic term for any map line which joins points of equal value.
A) projection
B) meridian
C) rhumb line
D) isoline
E) legend
Answer: D
Diff: 1
Topic/Section: Isolines
Bloom's Taxonomy: 1. Remember

47) To represent elevation on maps, cartographers use _____, which are a form of isoline.
A) rhumb lines
B) contour lines
C) isoamplitudes
D) meters
E) isotherms
Answer: B
Diff: 1
Topic/Section: Isolines
Bloom's Taxonomy: 1. Remember

48) To construct an isoline on a map, it is necessary to _____.
A) make the map both equivalent and conformal
B) note the magnetic declination
C) color it purple
D) first draw the line on a globe
E) interpolate between points of known value
Answer: E
Diff: 3
Topic/Section: Isolines
Bloom's Taxonomy: 5. Evaluate

49) Which of the following is essential for GPS to function?
A) Highly accurate timekeeping
B) A nearby base station on Earth's surface
C) A small radar unit
D) A GIS unit in a receiver
E) Locations on land instead of ocean
Answer: A
Diff: 1
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 2. Understand

50) Which of the following is the acronym for the system of U.S. Department of Defense satellites, which are used to establish exact locations on Earth?

A) GIS
B) Landsat
C) GPS
D) EOS
E) Color infrared
Answer: C
Diff: 1
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 2. Understand

51) The U.S. version of GPS is dependent on triangulation using a network of _____ satellites.
A) 2
B) 3
C) 5
D) 24
E) 108
Answer: D
Diff: 2
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 2. Understand

52) The global positioning system (GPS) is based on _____.
A) aerial photography
B) infrared light sources
C) data from satellites
D) large, expensive receivers
E) gravity waves from the Sun and Moon
Answer: C
Diff: 1
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 1. Remember

53) Which of the following is NOT part of a Geographic Information System?
A) Collection, input, and correction of data
B) Human drawing of isolines on maps
C) Data storage and retrieval
D) Output and reporting
E) Manipulation and analysis of data layers
Answer: B
Diff: 2
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 3. Apply

54) For the geographer, the new mapping tools like remote sensing, GPS, and GIS are best viewed as _____.

A) replacements for traditional geographic description
B) in the test mode and too expensive for most geographers to use
C) adjuncts to field study
D) aids to the study of small areas
E) too difficult for geographers to use
Answer: C
Diff: 3
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 5. Evaluate

55) _____ is the science of obtaining reliable measurements from photographs.
A) Sonar
B) Orthophoto mapping
C) Remote sensing
D) Photogrammetry
E) Satellite imaging
Answer: D
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 1. Remember

56) The first airborne platform for aerial photography was a(n) _____.
A) balloon
B) airplane
C) kite
D) satellite
E) lighthouse
Answer: A
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 1. Remember

57) _____ is the science of taking reliable measurements from aerial photographs.
A) Cartography
B) Photogrammetry
C) Map projection
D) Multispectral scanning
E) Symap
Answer: B
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 1. Remember

58) In _____ film photography, the photographic film is sensitive to wavelengths longer than visible light.

A) color infrared
B) passive microwave
C) true color
D) panchromatic
E) Landsat
Answer: A
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 2. Understand

59) The type of remote sensing which can penetrate clouds at night for accurate terrain representation is _____.
A) radar
B) sonar
C) passive microwave
D) thermal infrared
E) Landsat
Answer: A
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 2. Understand

60) Which of the following is NOT a form of remote sensing?
A) Aerial photography
B) Color infrared photography
C) Radar
D) Thermal infrared imaging
E) Measurement by thermometer
Answer: E
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 5. Evaluate

61) On an orthophoto map, one might expect to find _____.
A) distortion-free photographs
B) many problems with map distortion
C) sketches rather than true projections
D) cultural but not physical features
E) symbols that are difficult to read
Answer: A
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 2. Understand

62) Which of the below is an active remote sensing system?
A) Color infrared photography

B) Landsat
C) Microwave remote sensing
D) Thermal infrared imagery
E) Black and white aerial photography
Answer: C
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 3. Apply

63) Aside from normal photographic film, _____ film has proven very valuable for interpretation of Earth resources from airborne cameras.
A) color infrared
B) ultraviolet
C) thermal infrared
D) X-ray
E) gamma ray
Answer: A
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 5. Evaluate

64) On which type of aerial imagery would a football field of artificial grass be discernible from natural grass?
A) Color photography
B) Black and white photography
C) Color infrared photography
D) Radar imagery
E) Microwave imagery
Answer: C
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 3. Apply

65) Which of the following refers to an "active" remote sensing system?
A) Radar
B) Color infrared photography
C) GPS
D) Thermal infrared imagery
E) Black and white photography
Answer: A
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 4. Analyze

66) A satellite that remains over the same spot all the time is _____.
A) geosynchronous
B) photogrammetric
C) a "low orbiter"
D) Landsat mission
E) an impossibility
Answer: A
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 4. Analyze

67) Which of the below wavelengths have been most useful in measuring biomass?
A) Ultraviolet
B) X-rays
C) Near infrared
D) Radio wavelengths
E) Gamma wavelengths
Answer: C
Diff: 2
Topic/Section: Remote Sensing
Bloom's Taxonomy: 4. Analyze

68) Which remote sensing system senses the longest wavelengths?
A) Landsat
B) Color photography
C) Thermal infrared imaging
D) Radar
E) Black and white photography
Answer: D
Diff: 3
Topic/Section: Remote Sensing
Bloom's Taxonomy: 5. Evaluate

69) MODIS is associated with which satellite series?
A) Landsat
B) GOES
C) Space Shuttle
D) NIMBUS
E) EOS
Answer: E
Diff: 3
Topic/Section: Remote Sensing
Bloom's Taxonomy: 5. Evaluate

70) In terms of remote sensing, geographers _____.
A) should not stop using maps and field study

B) have shown very little interest
C) will someday identify one remote sensing type best for all purposes
D) have never used remote sensing
E) should never use remote sensing
Answer: A
Diff: 3
Topic/Section: Remote Sensing
Bloom's Taxonomy: 5. Evaluate

71) The first aerial photographs were taken _____.
A) in the middle 1800s
B) during World War II
C) during the Vietnam War
D) during the Korean War
E) in the middle 1600s
Answer: A
Diff: 1
Topic/Section: Aerial Photographs
Bloom's Taxonomy: 1. Remember

72) The "false color" imagery of some aerial photographs is also termed _____.
A) Landsat
B) microwave
C) color IR
D) sonar
E) radar
Answer: C
Diff: 1
Topic/Section: Visible Light and Infrared Sensing
Bloom's Taxonomy: 2. Understand

73) On color infrared photography, living green vegetation appears _____.
A) blue
B) orange
C) red
D) green
E) violet
Answer: C
Diff: 1
Topic/Section: Visible Light and Infrared Sensing
Bloom's Taxonomy: 1. Remember

74) _____ is the type of remote sensing imagery best suited to use at night.
A) Visible

B) An orthophoto map
C) Color infrared
D) Polaroid
E) Thermal infrared
Answer: E
Diff: 2
Topic/Section: Visible Light and Infrared Sensing
Bloom's Taxonomy: 3. Apply

75) Which of the following portions of the electromagnetic spectrum is sensed on FILM?
A) Microwave
B) Radar
C) Thermal infrared
D) Color infrared
E) Multispectral
Answer: D
Diff: 2
Topic/Section: Visible Light and Infrared Sensing
Bloom's Taxonomy: 2. Understand

76) By far, the greatest use of IR scanning systems has been _____.
A) to penetrate clouds
B) onboard meteorological satellites
C) in surface weather thermometer shelters
D) in making orthophoto quadrangles
E) to sense underwater features
Answer: B
Diff: 1
Topic/Section: Thermal Infrared Sensing
Bloom's Taxonomy: 1. Remember

77) The most important Earth resources satellite series was started in the 1970s and is known as _____.
A) Landsat
B) Sputnik
C) TIROS
D) Seasat
E) GOES
Answer: A
Diff: 1
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 2. Understand

78) Satellite data are analyzed in individual pieces representing several to many meters on the Earth's surface. These pieces are known as _____.
A) pixels
B) RBVs
C) false color images
D) scan lines
E) computer maps
Answer: A
Diff: 1
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 2. Understand

79) Radar senses energy in wavelengths longer than 1 _____.
A) angstrom
B) micrometer
C) millimeter
D) meter
E) kilometer
Answer: C
Diff: 2
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 2. Understand

80) Which of the following forms of remote sensing is based on sound?
A) Sonar
B) Microwave sensing
C) Radar
D) Thermal infrared imaging
E) Color infrared photography
Answer: A
Diff: 1
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 2. Understand

81) Radar imagery is suited for sensing _____.
A) emitted heat
B) reflected light
C) terrain
D) crop health
E) fluctuations in Earth's orbit
Answer: C
Diff: 2
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 3. Apply

82) Which of the following is the most recent type of Earth resource satellites?
A) Landsat

B) GOES
C) NEXRAD
D) EOS
E) GPS
Answer: D
Diff: 3
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate

83) Which of the following is most closely identified with "multispectral remote sensing?"
A) Radar imaging
B) Color infrared photography
C) Landsat
D) Microwave imaging
E) Thermal infrared scanning
Answer: C
Diff: 3
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate

84) The basic imaging instrument in the Landsat series of satellites is known as the _____.
A) camera
B) radar screen
C) pixel
D) thematic mapper
E) Skylab data
Answer: D
Diff: 3
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate

85) A GIS is a library of information based on _____.
A) satellites
B) stereoscopic image viewing
C) many land survey records stored on microfilm
D) manual cartography
E) maps
Answer: E
Diff: 2
Topic/Section: Geographic Information Systems (GIS)
Bloom's Taxonomy: 4. Analyze

86) A geographic information systems allows a link between data and a(n) _____.
A) scientific theory

B) map
C) computer
D) color
E) orthophoto mapping
Answer: B
Diff: 2
Topic/Section: Geographic Information Systems (GIS)
Bloom's Taxonomy: 5. Evaluate

87) Probably the largest concern with the geographer's use of maps and imagery is _____.
A) choosing the most effective maps and imagery
B) making sure it is available on the Internet
C) to always use GIS
D) to make sure the property of equivalence is always preserved
E) to use images instead of maps when possible
Answer: A
Diff: 3
Topic/Section: Geographic Information Systems (GIS)
Bloom's Taxonomy: 5. Evaluate

88) Which of the following would be used for overlay map analysis where two or more map layers are superimposed or integrated?
A) GIS
B) Landsat
C) GPS
D) EOS
E) Color infrared
Answer: A
Diff: 3
Topic/Section: Geographic Information Systems (GIS)
Bloom's Taxonomy: 5. Evaluate

89) Which of the following would be a type of application in which a geographic information system would NOT be used?
A) Integrating topographic information with vegetation information
B) Environment site assessment
C) Resource management
D) Environmental monitoring
E) Monitoring of weather data at a single weather station
Answer: E
Diff: 3
Topic/Section: Geographic Information Systems (GIS)
Bloom's Taxonomy: 5. Evaluate

90) Which of the following choices represents a technology into which the other choices can be used as inputs?
A) GPS
B) GIS
C) Landsat imagery
D) Field data
E) Aerial photography
Answer: B
Diff: 3
Topic/Section: Geographic Information Systems (GIS)
Bloom's Taxonomy: 5. Evaluate

91) A(n) _____ scale is a type of map scale which makes use of a line marked off in graduated distances.
Answer: graphic
Diff: 2
Topic/Section: Map Scale
Bloom's Taxonomy: 2. Understand

92) The representative fraction equivalent to the statement "one inch equals one mile" is _____.
Answer: 1:63,360 or 1:62,500
Diff: 2
Topic/Section: Map Scale
Bloom's Taxonomy: 1. Remember

93) Equivalence is the property of map projections which _____.
Answer: causes areas to be shown in their correct relative sizes on a map projection
Diff: 1
Topic/Section: Map Projections
Bloom's Taxonomy: 2. Understand

94) A problem with conformal projections is that _____.
Answer: areas must be distorted to show proper shapes
Diff: 1
Topic/Section: Map Properties
Bloom's Taxonomy: 2. Understand

95) Title, date, and legend are three of the five _____ (2 words).
Answer: map essentials
Diff: 3
Topic/Section: Map Essentials
Bloom's Taxonomy: 5. Evaluate

96) _____ is the measurement or acquisition of information by a recording device which is not in physical contact with the object under study.
Answer: Remote sensing
Diff: 1
Topic/Section: Remote Sensing
Bloom's Taxonomy: 1. Remember

97) _____ is the Landsat spectral band used for identification of wetlands, organic soils, and water bodies.
Answer: The near infrared
Diff: 1
Topic/Section: Visible Light and Infrared Sensing
Bloom's Taxonomy: 2. Understand

98) _____ micrometers is a wavelength of visible light. (ANY of the wavelengths will do.)
Answer: Any wavelength between 0.36 and 0.72 micrometers.
Diff: 3
Topic/Section: Visible Light and Infrared Sensing
Bloom's Taxonomy: 3. Apply

99) Explain how the properties of conformality and equivalence always pose a dilemma to the mapmaker.
Answer: This is the classic problem for the mapmaker. A map cannot preserve both shape and relative size. A cartographer must choose one or the other or neither.
Diff: 2
Topic/Section: Map Properties
Bloom's Taxonomy: 3. Apply

100) Name 4 of the 6 essentials and the purpose of each one. Include definition of each.
Answer: Title, date, legend, scale, direction, location.
Diff: 3
Topic/Section: Map Essentials
Bloom's Taxonomy: 5. Evaluate

101) Explain how the Global positioning system operates to locate your position within a few meters.
Answer: GPS trilaterates position by using the distance and direction to several polar orbiting satellites. The orbits are well known and a satellite is located via radio transmissions from the satellite.
Diff: 2
Topic/Section: GPS - The Global Positioning System
Bloom's Taxonomy: 2. Understand

102) Compare/contrast the purposes of Landsat and commercial high-resolution satellites.
Answer: Landsat in the public domain for Earth resources. Commercial satellites also study Earth resources but at higher resolution and the user is charged considerable money to do so.
Diff: 3
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate

103) Explain how the use of multispectral scanning is an advantage over the use of a single band when identifying Earth features via remote sensing.
Answer: Various bands are best for various features–give example(s). The point is that a combination of bands should be superior.
Diff: 3
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate

104) Suppose a geographer was hired to help assess the health/vigor of the winter wheat crop (to be harvested in the late spring) in an agricultural county of a Great Plains state, the object would be to predict the winter wheat yield two months in advance. What sort of remote sensing techniques might be used and why?
Answer: Answers will vary. The student should mention some form of remote sensing (photography or satellite imaging) that uses the near infrared portion of the spectrum sensitive to plant greenness.
Diff: 3
Topic/Section: Multispectral Remote Sensing
Bloom's Taxonomy: 5. Evaluate