

## Chapter 14 Practice Test

### Multiple Choice

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

- \_\_\_\_ 1. One cause of \_\_\_\_ may be deforestation.
- a. thunderstorms
  - b. global warming
  - c. clouds
  - d. precipitation
- \_\_\_\_ 2. A major influence on climate is \_\_\_\_.
- a. large bodies of water
  - b. large cities
  - c. ocean currents
  - d. all of the above
- \_\_\_\_ 3. When gas, oil, and coal are burned, \_\_\_\_ is added to the atmosphere.
- a. chlorofluorocarbon
  - b. carbon dioxide
  - c. hydrogen
  - d. oxygen
- \_\_\_\_ 4. Moderate temperatures are characteristic of \_\_\_\_.
- a. the polar zone
  - b. the tropics
  - c. both a and b
  - d. the temperate zones
- \_\_\_\_ 5. Seasons are caused by differences in daylight, temperature, and weather patterns due to \_\_\_\_.
- a. El Niño
  - b. global warming
  - c. the tilt of the Earth as it revolves around the Sun
  - d. all of the above
- \_\_\_\_ 6. Earth can be cooled greatly by \_\_\_\_.
- a. deforestation
  - b. the burning of fossil fuels
  - c. the greenhouse effect
  - d. volcanic eruptions
- \_\_\_\_ 7. If there are 24 consecutive hours of darkness, then \_\_\_\_.
- a. it is summer near a polar region
  - b. it is winter near a polar region
  - c. it is spring at the equator
  - d. it is a winter day in a temperate zone
- \_\_\_\_ 8. Which of the following facts might be related to polar climates?
- a. Solar energy hits these regions at a low angle.
  - b. Year-round temperatures are always hot.
  - c. These regions lie between latitudes 23° North and 23° South.
  - d. Temperatures in these zones are moderate.
- \_\_\_\_ 9. El Niño is a climate event that starts in the \_\_\_\_ and sets off changes in the atmosphere.
- a. tropical Atlantic Ocean
  - b. tropical Pacific Ocean
  - c. Arctic Ocean
  - d. Indian Ocean
- \_\_\_\_ 10. A climate classification system divides regions according to \_\_\_\_.
- a. temperature
  - b. the amount of precipitation
  - c. the types of plants found there
  - d. all of the above
- \_\_\_\_ 11. During El Niño, trade winds that blow east to west weaken and sometimes \_\_\_\_.
- a. stop
  - b. reverse
  - c. speed up
  - d. rise

- \_\_\_ 12. Changes in the shape of Earth's orbit around the Sun \_\_\_\_.
- cause the seasons to change year after year
  - happen at regular intervals ranging from 1,000 to 10,000 years
  - may happen over a 100,000-year cycle
  - are caused by global warming
- \_\_\_ 13. Climate is different from weather in that it \_\_\_\_.
- changes more frequently
  - changes less frequently
  - is more extreme
  - gets more attention on television
- \_\_\_ 14. A gas that increases the greenhouse effect is \_\_\_\_.
- hydrogen
  - carbon dioxide
  - oxygen
  - none of the above
- \_\_\_ 15. If there were no greenhouse effect, Earth's surface would \_\_\_\_.
- be too hot for life to exist
  - be all water
  - be too cold for life to exist
  - not be affected
- \_\_\_ 16. Earth's atmosphere is warmed by the greenhouse effect because heat radiated from Earth's surface is \_\_\_\_ by gases in the atmosphere.
- cooled
  - absorbed
  - burned up
  - none of the above

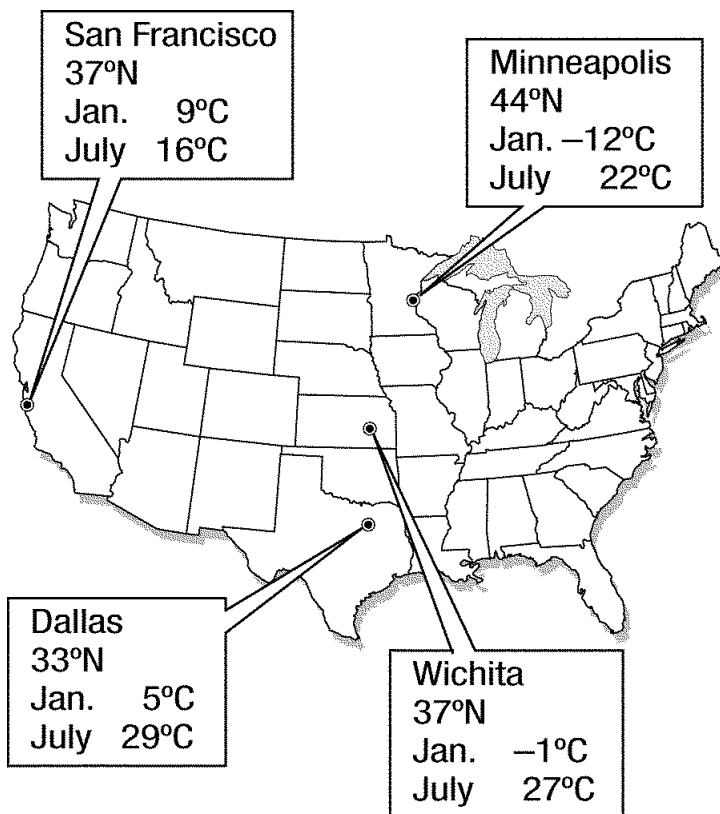
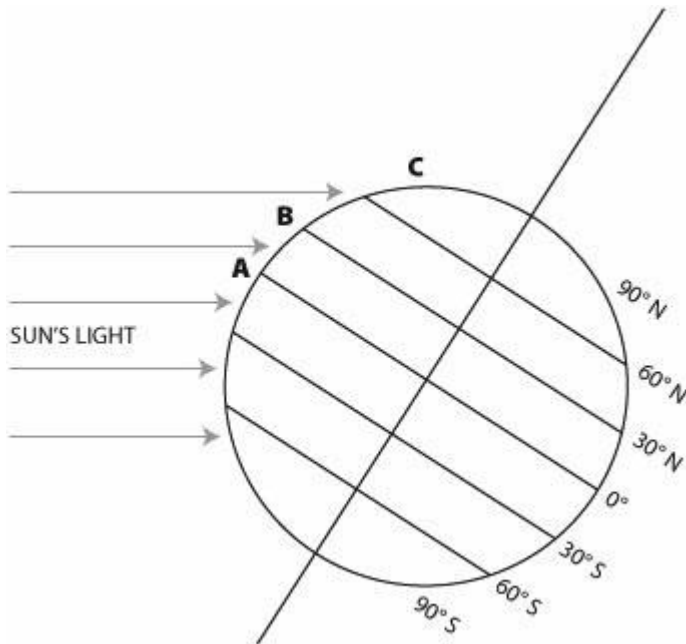


Figure 17-1

- \_\_\_ 17. As indicated in Figure 17-1, San Francisco is located at the same latitude as \_\_\_\_.
- Wichita
  - Minneapolis
  - Dallas
  - none of the above

- \_\_\_ 18. According to Figure 17-1, the city with the coldest climate is \_\_\_\_.
- |                |                  |
|----------------|------------------|
| a. Wichita     | c. Dallas        |
| b. Minneapolis | d. San Francisco |
- \_\_\_ 19. Climate is the weather \_\_\_\_.
- closer to the equator
  - at the poles
  - of a region averaged over a long period of time
  - changes from day to day
- \_\_\_ 20. The rays of the Sun strike Earth most directly \_\_\_\_.
- |                   |                          |
|-------------------|--------------------------|
| a. at the equator | c. in the temperate zone |
| b. at the poles   | d. over the oceans       |
- \_\_\_ 21. Which receives the most solar radiation?
- |                    |                        |
|--------------------|------------------------|
| a. the tropics     | c. the oceans          |
| b. the polar zones | d. the temperate zones |
- \_\_\_ 22. Climatologists use a classification system developed in 1918 by \_\_\_\_.
- |             |            |
|-------------|------------|
| a. Köppen   | c. Galileo |
| b. Einstein | d. Wegener |



*Use the diagram to answer the questions.*

- \_\_\_ 23. Why would point A have the warmest climate?
- |  |  |
|--|--|
| a. The majority of the Sun's rays are absorbed at point A. | c. More of the Sun's rays hit point A than any other place on Earth. |
| b. The Sun's rays are nearly perpendicular to point A.     | d. Point A is closer to the Sun than any other point.                |
- \_\_\_ 24. What zone is point B located in?
- |                     |                      |
|---------------------|----------------------|
| a. the tropics zone | c. the moderate zone |
|---------------------|----------------------|

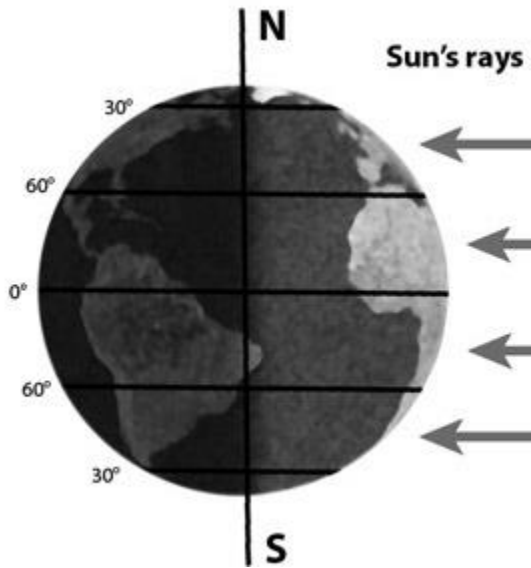
- b. the temperate zone
- d. the polar zone

25. What zone is point C located in?

- a. the tropics zone
- b. the temperate zone
- c. the moderate zone
- d. the polar zone

26. A scientist wants to update data on the climate normals for Las Vegas, Nevada. If he starts keeping weather records in 2008 what year will be the soonest that the scientists can claim the collected data as new climate normals?

- a. 2028
- b. 2033
- c. 2038
- d. 2043



*Use the diagram to answer the questions.*

27. In the diagram, the spring and fall seasons are occurring. Which pole is pointing towards the Sun?

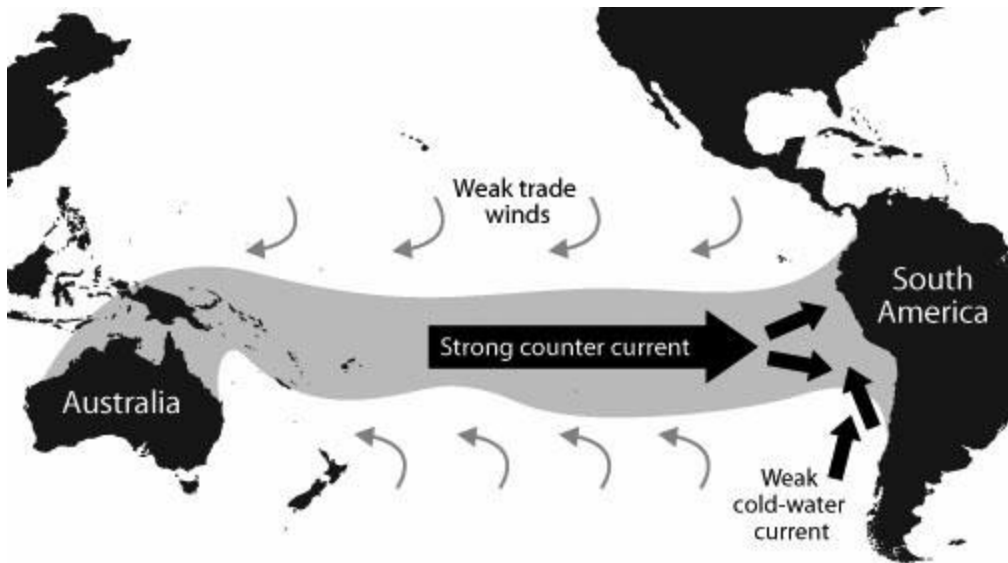
- a. Both
- b. Neither
- c. the North pole
- d. the South pole

28. As the Earth revolves and the North Pole tilts towards the Sun, what season would the southern hemisphere experience?

- a. winter
- b. spring
- c. summer
- d. fall

29. As the Earth continues to revolve, which location will experience the least climate change?

- a. 0°
- b. 30°N
- c. 30°S
- d. 60°N



*Use the diagram to answer the questions.*

- \_\_\_ 30. What short term climate change is being demonstrated in the diagram?
- |                        |            |
|------------------------|------------|
| a. The onset of spring | c. El Nino |
| b. The onset of fall   | d. La Nina |
- \_\_\_ 31. What type of weather will the western coast of South America experience during this short-term climate change?
- |                 |                 |
|-----------------|-----------------|
| a. cool and dry | c. cool and wet |
| b. warm and wet | d. warm and dry |
- \_\_\_ 32. Which natural phenomena will, over the next 13,000 years, gradually causes the Northern Hemisphere to experience summer during today's current winter?
- |                   |                   |
|-------------------|-------------------|
| a. solar activity | c. Earth's tilt   |
| b. Earth's orbit  | d. Earth's wobble |
- \_\_\_ 33. A widely used climate classification system is the \_\_\_ system.
- |                |            |
|----------------|------------|
| a. Maunden     | c. Koeppen |
| b. Topographic | d. Korten  |
- \_\_\_ 34. Studies indicate that periods of low sunspot activity, like the \_\_\_, correspond to unusually cold climate conditions.
- |                    |                    |
|--------------------|--------------------|
| a. Maunder minimum | c. Maunder divide  |
| b. Maunder ice age | d. Maunder maximum |
- \_\_\_ 35. The burning of fossil fuels releases large amounts of \_\_\_ into the atmosphere, which contributes to global warming.
- |                      |                   |
|----------------------|-------------------|
| a. carbon monoxide   | c. carbon dioxide |
| b. calcium carbonate | d. sulfur dioxide |
- \_\_\_ 36. Two climates that are at the same latitude may be different because of \_\_\_.
- |                            |                           |
|----------------------------|---------------------------|
| a. bodies of water         | c. Earth's magnetic field |
| b. distance from the poles | d. soil type              |



- \_\_\_ 46. The greenhouse effect is the natural cooling of Earth's surface caused by certain gases in the atmosphere. \_\_\_\_\_
- \_\_\_ 47. The Koeppen classification system classifies climate based on mean monthly values of temperature and precipitation. \_\_\_\_\_
- \_\_\_ 48. The Maunder minimum is a period of very low precipitation activity that closely corresponded to an unusually cold climatic episode. \_\_\_\_\_

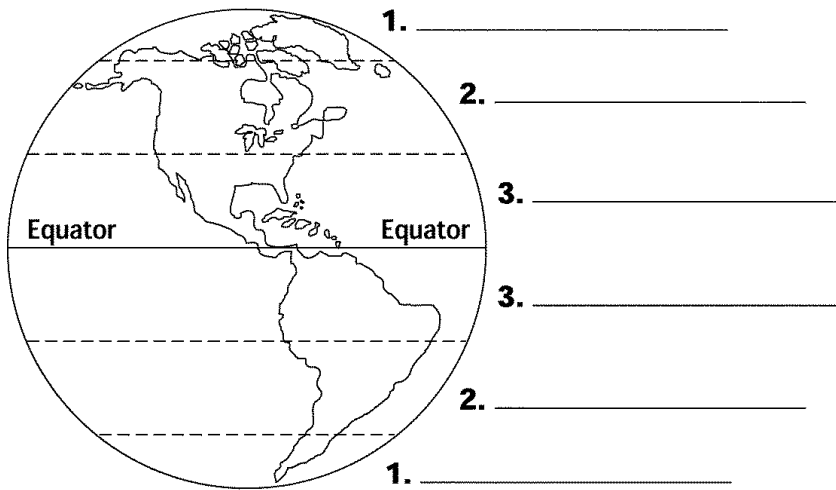
**Matching**

Match each question with the type of climate it describes best.

- a. tropical climates
- b. dry climates
- c. mild climates
- d. continental climates
- e. polar climates

- \_\_\_ 49. experiences violent changes in weather due to tropical and polar air masses meeting in these regions
- \_\_\_ 50. produces rain forests with dramatic vegetation
- \_\_\_ 51. a tundra with no trees and low amounts of precipitation
- \_\_\_ 52. a subcategory, known as humid subtropical climates, produce warm, muggy weather in warmer months and dry, cool conditions during the winter months
- \_\_\_ 53. the largest climatic zone covering 30 percent of Earth's land area

Using the diagram below, match each climate zone with its correct location on Earth.



- a. temperate
- b. tropical
- c. polar

- \_\_\_ 54. Zone 1

\_\_\_ 55. Zone 2

\_\_\_ 56. Zone 3

*Match each item with the correct statement below.*

a. season

c. climatology

b. ice age

d. El Niño

\_\_\_ 57. The study of Earth's climate and the factors that affect past, present, and future climate changes

\_\_\_ 58. A short-term period of climatic change caused by regular variations in daylight, temperature, and weather patterns

\_\_\_ 59. Period when much of Earth's surface was covered by vast sheets of ice

\_\_\_ 60. A warm ocean current that develops off the west coast of South America



## Chapter 14 Practice Test Answer Section

### MULTIPLE CHOICE

1. ANS: B                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
2. ANS: D                   PTS: 1                   DIF: B                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3
3. ANS: B                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
4. ANS: D                   PTS: 1                   DIF: B                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3
5. ANS: C                   PTS: 1                   DIF: B                   OBJ: 5/3  
NAT: UCP1 | UCP2 | D3                   STA: SC.D.1.3
6. ANS: D                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
7. ANS: B                   PTS: 1                   DIF: A                   OBJ: 5/3  
NAT: UCP1 | UCP2 | D3                   STA: SC.D.1.3
8. ANS: A                   PTS: 1                   DIF: A                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3
9. ANS: B                   PTS: 1                   DIF: B                   OBJ: 6/3  
NAT: UCP1 | UCP3 | D1                   STA: SC.D.1.3
10. ANS: D                   PTS: 1                   DIF: B                   OBJ: 3/2  
NAT: C1 | D1 | UCP1                   STA: SC.D.1.3
11. ANS: B                   PTS: 1                   DIF: B                   OBJ: 6/3  
NAT: UCP1 | UCP3 | D1                   STA: SC.D.1.3
12. ANS: C                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
13. ANS: B                   PTS: 1                   DIF: B                   OBJ: 1/1  
NAT: UCP3 | D1                   STA: SC.D.1.3
14. ANS: B                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
15. ANS: C                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
16. ANS: B                   PTS: 1                   DIF: B                   OBJ: 7/3  
NAT: UCP1 | UCP3 | A2                   STA: SC.D.1.3
17. ANS: A                   PTS: 1                   DIF: B                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3
18. ANS: B                   PTS: 1                   DIF: B                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3
19. ANS: C                   PTS: 1                   DIF: A                   OBJ: 1/1  
NAT: UCP3 | D1                   STA: SC.D.1.3
20. ANS: A                   PTS: 1                   DIF: B                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3
21. ANS: A                   PTS: 1                   DIF: B                   OBJ: 2/1  
NAT: UCP3 | A1 | D1                   STA: SC.D.1.3

22. ANS: A                   PTS: 1                   DIF: A                   OBJ: 3/2  
NAT: C1 | D1 | UCP1                   STA: SC.D.1.3
23. ANS: B                   PTS: 1                   DIF: Bloom's Level 5  
NAT: D.1                   STA: SC.D.1.4.3
24. ANS: B                   PTS: 1                   DIF: Bloom's Level 4  
NAT: D.1                   STA: SC.D.1.4.3
25. ANS: D                   PTS: 1                   DIF: Bloom's Level 4  
NAT: D.1                   STA: SC.D.1.4.3
26. ANS: C                   PTS: 1                   DIF: Bloom's Level 3  
NAT: D.1                   STA: SC.D.1.4.3
27. ANS: B                   PTS: 1                   DIF: Bloom's Level 4  
NAT: D.1                   STA: SC.D.1.4.1
28. ANS: A                   PTS: 1                   DIF: Bloom's Level 3  
NAT: D.1                   STA: SC.D.1.4.1
29. ANS: A                   PTS: 1                   DIF: Bloom's Level 5  
NAT: D.1                   STA: SC.D.1.4.1
30. ANS: C                   PTS: 1                   DIF: Bloom's Level 4  
NAT: D.1                   STA: SC.D.1.4.1
31. ANS: B                   PTS: 1                   DIF: Bloom's Level 3  
NAT: D.1                   STA: SC.D.1.4.1
32. ANS: D                   PTS: 1                   DIF: Bloom's Level 1  
NAT: D.1                   STA: SC.D.1.4.3
33. ANS: C                   PTS: 1                   DIF: Bloom's Level 1  
NAT: UCP1 | A1 | D1                   STA: SC.D.1.4
34. ANS: A                   PTS: 1                   DIF: Bloom's Level 2  
NAT: UCP2 | D1                   STA: SC.D.1.4
35. ANS: C                   PTS: 1                   DIF: Bloom's Level 1  
NAT: UCP2 | F2 | F3 | F4
36. ANS: A                   PTS: 1                   DIF: Bloom's Level 1  
NAT: UCP2 | D1 | D3                   STA: SC.D.1.4
37. ANS: C                   PTS: 1                   DIF: Bloom's Level 2  
NAT: UCP2 | D1                   STA: SC.D.1.4
38. ANS: A                   PTS: 1                   DIF: Bloom's Level 2  
NAT: UCP2 | D1 | D3                   STA: SC.D.1.4

## COMPLETION

39. ANS: tropics  
PTS: 1                   DIF: B                   OBJ: 2/1                   NAT: UCP3 | A1 | D1  
STA: SC.D.1.3
40. ANS: colder  
PTS: 1                   DIF: A                   OBJ: 2/1                   NAT: UCP3 | A1 | D1  
STA: SC.D.1.3
41. ANS: desert  
PTS: 1                   DIF: B                   OBJ: 2/1                   NAT: UCP3 | A1 | D1

STA: SC.D.1.3

### SHORT ANSWER

42. ANS:

Answers will vary. Examples include reducing the use of private automobiles by carpooling, using public transportation, or biking; planting vegetation; and using energy sources that don't burn fossil fuels.

PTS: 1

DIF: A

OBJ: 7/3

NAT: UCP1 | UCP3 | A2

STA: SC.D.1.3

### MODIFIED TRUE/FALSE

43. ANS: T

PTS: 1

DIF: Bloom's Level 1

NAT: UCP1 | A1 | D1

STA: SC.D.1.4

44. ANS: F, ice

PTS: 1

DIF: Bloom's Level 1

NAT: UCP3 | A1 | D1

STA: SC.D.1.4

45. ANS: T

PTS: 1

DIF: Bloom's Level 1

NAT: UCP2 | D1

STA: SC.D.1.4

46. ANS: F, heating

PTS: 1

DIF: Bloom's Level 1

NAT: UCP2 | A1 | D1

STA: SC.D.1.4

47. ANS: T

PTS: 1

DIF: Bloom's Level 1

NAT: UCP1 | A1 | D1

STA: SC.D.1.4

48. ANS: F, sunspot

PTS: 1

DIF: Bloom's Level 1

NAT: UCP3 | A1 | D1

STA: SC.D.1.4

### MATCHING

49. ANS: D

PTS: 1

DIF: Bloom's Level 2

NAT: D.1

STA: SC.D.1.4.3

50. ANS: A

PTS: 1

DIF: Bloom's Level 2

NAT: D.1

STA: SC.D.1.4.3

51. ANS: E

PTS: 1

DIF: Bloom's Level 2

NAT: D.1

STA: SC.D.1.4.3

52. ANS: C

PTS: 1

DIF: Bloom's Level 2

NAT: D.1

STA: SC.D.1.4.3

53. ANS: B

PTS: 1

DIF: Bloom's Level 2

NAT: D.1

STA: SC.D.1.4.3

54. ANS: C

PTS: 1

DIF: Bloom's Level 2

NAT: UCP2 | D1 | D3

STA: SC.D.1.4

55. ANS: A

PTS: 1

DIF: Bloom's Level 2

56. NAT: UCP2 | D1 | D3  
ANS: B PTS: 1  
NAT: UCP2 | D1 | D3  
STA: SC.D.1.4  
DIF: Bloom's Level 2  
STA: SC.D.1.4
57. ANS: C PTS: 1  
NAT: UCP1 | A1 | A2  
DIF: Bloom's Level 2  
STA: SC.D.1.4
58. ANS: A PTS: 1  
NAT: UCP3 | A1 | D1  
DIF: Bloom's Level 2  
STA: SC.D.1.4
59. ANS: B PTS: 1  
NAT: UCP3 | A1 | D1  
DIF: Bloom's Level 2  
STA: SC.D.1.4
60. ANS: D PTS: 1  
NAT: UCP3 | A1 | D1  
DIF: Bloom's Level 2  
STA: SC.D.1.4