

Student: _____

1. Ocean waves breaking on a beach are formed by this
 - A. Earthquakes.
 - B. Wind.
 - C. Tides.
 - D. Passing ships.
2. As tides rise and fall, the portion that is regularly washed by waves is referred to as
 - A. Beach.
 - B. Coast.
 - C. Beach face.
 - D. Barrier island.
3. The periodic fall and rise in levels of water as a result of gravitational force of the sun and moon would result in
 - A. Surges.
 - B. Currents.
 - C. Waves.
 - D. Tides.
4. Littoral drift, which results in gradual sand movement down the beach in the same direction is also referred to as
 - A. Long shore drift.
 - B. Saltation.
 - C. Traction.
 - D. The Gulf Stream.
5. Along an irregular coastline, areas most intensely under attack by waves are
 - A. Recessed bays into which breakers come rolling from far at sea.
 - B. Headlands projecting out into the sea.
 - C. Areas down-current of piers and breakwaters.
 - D. None of these; all points along a given coastline are affected equally.
6. When waves approach a beach at an oblique angle, resulting in a lateral movement of water along the shoreline a _____ may develop.
 - A. Delta
 - B. Groin
 - C. Sand dune
 - D. Long shore current
7. During a storm,
 - A. Overall water level falls due to the low air pressure associated with storms.
 - B. Wave height increases because of strong winds.
 - C. Dunes are typically built up by deposition of extra sediment.
 - D. All of the choices are correct.
8. Construction of a seawall at the back of a beach will
 - A. Prevent sand movement by littoral drift along the beach.
 - B. Cut off sediment supply from dunes at the back of the beach.
 - C. Prevent water rising during storm surges.
 - D. All of the choices are correct.

9. When sand replenishment of a beach is undertaken,
 - A. The effort is considerable, but it need only be done once.
 - B. Erosion will be halted when the new sand is firmly in place.
 - C. It may be important to duplicate the mineralogy and grain size of the original sand.
 - D. All of the choices are correct.
10. Hard/Structural stabilization of a beach
 - A. Is the best method for controlling beach erosion.
 - B. Often results in more, rather than less beach erosion.
 - C. Is banned by the Coastal Management and Protection Act.
 - D. Is necessary to create littoral drift.
11. Moving the Cape Hatteras lighthouse from its shore location inland is an example of
 - A. Hard structural stabilization.
 - B. Soft structural stabilization.
 - C. A non-structural strategy.
 - D. Increasing wave base.
12. Causes of shifts in relative elevation of land and sea along a coast include
 - A. Tectonic movements.
 - B. Glacial loading.
 - C. Melting of ice caps.
 - D. All of the choices are correct.
13. When sea level falls or land rises, _____ may be formed.
 - A. Deltas
 - B. Wave-cut platforms
 - C. Drowned valleys
 - D. Fjords
14. Beach replenishment projects that add sand to eroding beaches
 - A. Are a permanent solution to beach erosion that will never have to be repeated.
 - B. Must match the grain size of the sand, because finer sand will be carried away quickly by the ocean currents and coarser sand could result in a steeper beach face.
 - C. Are fairly inexpensive.
 - D. Are a hard/structural approach to beach stabilization.
15. Sand may be supplied to a beach by
 - A. Littoral drift along the coast.
 - B. Dunes at the back of the beach.
 - C. Streams draining the continent that end at the shore.
 - D. All of the choices are correct.
16. At present, along the eastern coast of the United States,
 - A. Sea level is rising.
 - B. Sea level is falling.
 - C. Sea level is rising, but the continent is rising faster.
 - D. Beaches are being extended seaward.
17. Along a coast, a body of water receiving input of both fresh and salt water is
 - A. A breakwater.
 - B. A berm.
 - C. A long shore current.
 - D. An estuary.

18. Barrier islands
 - A. Are long, low narrow, coast-parallel, sandy islands typically less than a meter or two above sea level.
 - B. Protect quiet lagoons that are areas of intense biological productivity and diversity.
 - C. Are eroded by strong wave action on their seaward side, thus moving them landward.
 - D. All of the choices are correct.
19. Potentially unstable coastlines may be identified by
 - A. The absence of shoreline-protection structures.
 - B. Comparison of recent and older maps or aerial photographs of the area, if available from sources such as . county planning office, detailed maps compiled earlier indicating the appearance of the coastline.
 - C. The width of the coastline.
 - D. A large amount of driftwood on the beach.
20. This feature tends to form by wave erosion behind the head of a steep-sided peninsula
 - A. Sea stack.
 - B. Sea cave.
 - C. Spit.
 - D. Baymouth bar.
21. Littoral drift that encounters a bay or indentation along a coast will form this
 - A. A spit.
 - B. A baymouth bar.
 - C. A tombolo.
 - D. Barrier islands.
22. An active continental margin is one at which many major storms with high storm surges occur.
True False
23. Salt water may contribute to rapid erosion, and thereby, result in breakup of rocky cliffs through chemical reaction with the rocks.
True False
24. Tides are mainly caused by the difference in pull of the moon's gravity on the oceans.
True False
25. Where ocean meets a steep rocky cliff, erosion is most rapid far below the water line, where the pressure of deep water is great.
True False
26. During storms, tides are often unusually high; over wash of dunes and rapid shoreline retreat are possible.
True False
27. A seawall or riprap barrier is effective in protecting only that section of shoreline along which it is constructed.
True False
28. A drowned valley is one that has been blocked by seawalls and flooded.
True False
29. Extraction of oil can lead to coastal flooding.
True False
30. Where seawalls have been built, the whole beach in front of them has sometimes been eroded away.
True False
31. When sea level rises, the rate at which the shoreline retreats landward depends partly on the slope of the beach.
True False

32. Beach sand replenishment is initially costly, but at least it is lasting; the average "life span" of a replenished beach is about 25 years.
True False
33. A storm surge results from the high air pressure associated with major storms.
True False
34. The amount of property damage and loss of life caused by a hurricane can be estimated directly from the intensity (category) of the storm.
True False
35. The rate of global sea-level rise may be accelerated through greenhouse-effect heating.
True False
36. Construction on barrier islands is highly desirable because it stabilizes these islands.
True False
37. Dune rebuilding and sand replenishment are examples of *Hard structural stabilization* and construction of solid structures *Soft structural stabilization*.
True False
38. Sea-level rise is increased by expansion of warmed ocean water.
True False
39. The ideal setting for constructing buildings in close proximity to an island or beach is at an elevation of approximate 5 meters or more higher than the normal high tide.
True False
40. Given a beach influenced by littoral drift, any interception of this drift will result in deposition of sand upstream of the interception and erosion of sand downstream of the interception.
True False
41. The best method for protecting a beach from erosion is the construction of a groin.
True False

7 Key

1. Ocean waves breaking on a beach are formed by this
- A. Earthquakes.
 - B.** Wind.
 - C. Tides.
 - D. Passing ships.

Montgomery - Chapter 07 #1

2. As tides rise and fall, the portion that is regularly washed by waves is referred to as
- A. Beach.
 - B. Coast.
 - C.** Beach face.
 - D. Barrier island.

Montgomery - Chapter 07 #2

3. The periodic fall and rise in levels of water as a result of gravitational force of the sun and moon would result in
- A. Surges.
 - B. Currents.
 - C. Waves.
 - D.** Tides.

Montgomery - Chapter 07 #3

4. Littoral drift, which results in gradual sand movement down the beach in the same direction is also referred to as
- A.** Long shore drift.
 - B. Saltation.
 - C. Traction.
 - D. The Gulf Stream.

Montgomery - Chapter 07 #4

5. Along an irregular coastline, areas most intensely under attack by waves are
- A. Recessed bays into which breakers come rolling from far at sea.
 - B.** Headlands projecting out into the sea.
 - C. Areas down-current of piers and breakwaters.
 - D. None of these; all points along a given coastline are affected equally.

Montgomery - Chapter 07 #5

6. When waves approach a beach at an oblique angle, resulting in a lateral movement of water along the shoreline a _____ may develop.
- A. Delta
 - B. Groin
 - C. Sand dune
 - D.** Long shore current

Montgomery - Chapter 07 #6

7. During a storm,
- A. Overall water level falls due to the low air pressure associated with storms.
 - B.** Wave height increases because of strong winds.
 - C. Dunes are typically built up by deposition of extra sediment.
 - D. All of the choices are correct.

Montgomery - Chapter 07 #7

8. Construction of a seawall at the back of a beach will
A. Prevent sand movement by littoral drift along the beach.
B. Cut off sediment supply from dunes at the back of the beach.
C. Prevent water rising during storm surges.
D. All of the choices are correct.

Montgomery - Chapter 07 #8

9. When sand replenishment of a beach is undertaken,
A. The effort is considerable, but it need only be done once.
B. Erosion will be halted when the new sand is firmly in place.
C. It may be important to duplicate the mineralogy and grain size of the original sand.
D. All of the choices are correct.

Montgomery - Chapter 07 #9

10. Hard/Structural stabilization of a beach
A. Is the best method for controlling beach erosion.
B. Often results in more, rather than less beach erosion.
C. Is banned by the Coastal Management and Protection Act.
D. Is necessary to create littoral drift.

Montgomery - Chapter 07 #10

11. Moving the Cape Hatteras lighthouse from its shore location inland is an example of
A. Hard structural stabilization.
B. Soft structural stabilization.
C. A non-structural strategy.
D. Increasing wave base.

Montgomery - Chapter 07 #11

12. Causes of shifts in relative elevation of land and sea along a coast include
A. Tectonic movements.
B. Glacial loading.
C. Melting of ice caps.
D. All of the choices are correct.

Montgomery - Chapter 07 #12

13. When sea level falls or land rises, _____ may be formed.
A. Deltas
B. Wave-cut platforms
C. Drowned valleys
D. Fjords

Montgomery - Chapter 07 #13

14. Beach replenishment projects that add sand to eroding beaches
A. Are a permanent solution to beach erosion that will never have to be repeated.
B. Must match the grain size of the sand, because finer sand will be carried away quickly by the ocean currents and coarser sand could result in a steeper beach face.
C. Are fairly inexpensive.
D. Are a hard/structural approach to beach stabilization.

Montgomery - Chapter 07 #14

15. Sand may be supplied to a beach by
A. Littoral drift along the coast.
B. Dunes at the back of the beach.
C. Streams draining the continent that end at the shore.
D. All of the choices are correct.

Montgomery - Chapter 07 #15

16. At present, along the eastern coast of the United States,
A. Sea level is rising.
B. Sea level is falling.
C. Sea level is rising, but the continent is rising faster.
D. Beaches are being extended seaward.

Montgomery - Chapter 07 #16

17. Along a coast, a body of water receiving input of both fresh and salt water is
A. A breakwater.
B. A berm.
C. A long shore current.
D. An estuary.

Montgomery - Chapter 07 #17

18. Barrier islands
A. Are long, low narrow, coast-parallel, sandy islands typically less than a meter or two above sea level.
B. Protect quiet lagoons that are areas of intense biological productivity and diversity.
C. Are eroded by strong wave action on their seaward side, thus moving them landward.
D. All of the choices are correct.

Montgomery - Chapter 07 #18

19. Potentially unstable coastlines may be identified by
A. The absence of shoreline-protection structures.
B. Comparison of recent and older maps or aerial photographs of the area, if available from sources such as county planning office, detailed maps compiled earlier indicating the appearance of the coastline.
C. The width of the coastline.
D. A large amount of driftwood on the beach.

Montgomery - Chapter 07 #19

20. This feature tends to form by wave erosion behind the head of a steep-sided peninsula
A. Sea stack.
B. Sea cave.
C. Spit.
D. Baymouth bar.

Montgomery - Chapter 07 #20

21. Littoral drift that encounters a bay or indentation along a coast will form this
A. A spit.
B. A baymouth bar.
C. A tombolo.
D. Barrier islands.

Montgomery - Chapter 07 #21

22. An active continental margin is one at which many major storms with high storm surges occur.
FALSE

Montgomery - Chapter 07 #22

23. Salt water may contribute to rapid erosion, and thereby, result in breakup of rocky cliffs through chemical reaction with the rocks.
TRUE

Montgomery - Chapter 07 #23

24. Tides are mainly caused by the difference in pull of the moon's gravity on the oceans.
TRUE

Montgomery - Chapter 07 #24

25. Where ocean meets a steep rocky cliff, erosion is most rapid far below the water line, where the pressure of deep water is great.
FALSE

Montgomery - Chapter 07 #25

26. During storms, tides are often unusually high; over wash of dunes and rapid shoreline retreat are possible.
TRUE
27. A seawall or riprap barrier is effective in protecting only that section of shoreline along which it is constructed.
TRUE *Montgomery - Chapter 07 #26*
28. A drowned valley is one that has been blocked by seawalls and flooded.
FALSE *Montgomery - Chapter 07 #27*
29. Extraction of oil can lead to coastal flooding.
TRUE *Montgomery - Chapter 07 #28*
30. Where seawalls have been built, the whole beach in front of them has sometimes been eroded away.
TRUE *Montgomery - Chapter 07 #29*
31. When sea level rises, the rate at which the shoreline retreats landward depends partly on the slope of the beach.
TRUE *Montgomery - Chapter 07 #30*
32. Beach sand replenishment is initially costly, but at least it is lasting; the average "life span" of a replenished beach is about 25 years.
FALSE *Montgomery - Chapter 07 #31*
33. A storm surge results from the high air pressure associated with major storms.
FALSE *Montgomery - Chapter 07 #32*
34. The amount of property damage and loss of life caused by a hurricane can be estimated directly from the intensity (category) of the storm.
FALSE *Montgomery - Chapter 07 #33*
35. The rate of global sea-level rise may be accelerated through greenhouse-effect heating.
TRUE *Montgomery - Chapter 07 #34*
36. Construction on barrier islands is highly desirable because it stabilizes these islands.
FALSE *Montgomery - Chapter 07 #35*
37. Dune rebuilding and sand replenishment are examples of *Hard structural stabilization* and construction of solid structures *Soft structural stabilization*.
FALSE *Montgomery - Chapter 07 #36*
38. Sea-level rise is increased by expansion of warmed ocean water.
TRUE *Montgomery - Chapter 07 #37*
39. The ideal setting for constructing buildings in close proximity to an island or beach is at an elevation of approximate 5 meters or more higher than the normal high tide.
TRUE *Montgomery - Chapter 07 #38*

40. Given a beach influenced by littoral drift, any interception of this drift will result in deposition of sand upstream of the interception and erosion of sand downstream of the interception.

TRUE

Montgomery - Chapter 07 #40

41. The best method for protecting a beach from erosion is the construction of a groin.

FALSE

Montgomery - Chapter 07 #41

7 Summary

<u>Category</u>	<u># of Questions</u>
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