Environmental Science Practice

Choose one answer per question. Circle A, B, C, or D.

1. In a diagram of Earth's systems, which sphere includes the liquid water in both a freshwater lake and the ocean?
   A. Hydrosphere
   B. Atmosphere
   C. Biosphere
   D. Geosphere

2. A cross section shows an underground layer of sand and gravel that stores groundwater and lets it flow through connected spaces. What is that water-bearing layer called?
   A. A surface floodplain
   B. A reservoir behind a dam
   C. An aquifer
   D. A drainage divide

3. A map highlights the strip of land directly alongside a river, including its banks and streamside plants. What is this strip called?
   A. The riverbed
   B. The riparian zone
   C. The open-water zone
   D. The headwaters

4. Which purchasing choice reduces packaging waste at the source for a school receiving the same books?
   A. Receive the same amount of compostable packaging and compost it.
   B. Receive the same amount of packaging and recycle it.
   C. Receive the same amount of packaging and send it to landfill.
   D. Choose a shipment that leaves off unnecessary individual wrappers.

5. Which fictional observation shows a single, identifiable point where polluted water enters a stream?
   A. Runoff reaches the stream along the edge of several fields.
   B. Polluted water enters the stream from one visible outlet pipe.
   C. Loose soil washes off many separate garden plots.
   D. Rain carries residues off a long stretch of ground at many places.

6. A model park has two woods separated by open ground. For an animal that moves through tree cover, which planting plan creates a continuous habitat corridor between the woods?

A. A strip of trees that joins both woods
B. A strip connected to one wood that ends before reaching the other
C. A patch of trees that touches neither wood
D. Extra trees inside each wood with the gap left open

7. On a fictional morning, cool air lies beneath warmer air and there is little wind. Near-ground pollutant readings rise even though emissions stay steady. How can the temperature inversion help explain this?

A. It causes an equal rise in pollutant concentration at every height.
B. It increases vertical mixing and carries pollutants quickly upward.
C. It concentrates pollutants mainly above the warmer layer.
D. It limits vertical mixing, so pollutants linger near the ground.

8. A monitoring record notes that acidic substances carried in the air reach a hillside in rain. Which process describes their transfer from the atmosphere to the hillside?

A. Evaporation
B. Dry deposition
C. Wet deposition
D. Infiltration

9. Two fictional reservoir samples have the same measured salt concentration. One looks cloudier and scatters more light. Which measurement would be higher for the cloudier sample?

A. Turbidity
B. Salinity
C. Water temperature
D. Dissolved oxygen

10. In a fictional estuary, a sample near a freshwater river has lower salinity than a sample near the ocean entrance taken at the same time. Which explanation best fits the locations?

A. Both sites contain the same proportions of freshwater and seawater.
B. Freshwater adds more dissolved salt than seawater does.
C. Seawater dilutes the salt closer to the ocean.
D. Freshwater dilutes the salt closer to the river.

11. A fictional aquifer gains 64 million liters of water per year. It loses 17 million liters to streams and 5 million liters to a neighboring aquifer. Assume pumping is the only other flow and all listed flows stay fixed. What yearly pumping volume keeps stored water unchanged in this model?

A. 59 million liters
B. 47 million liters
C. 42 million liters
D. 86 million liters

12. In a fictional model, Stream A carries 9 milligrams of suspended sediment per liter at 4 liters per second. Stream B carries 5 milligrams per liter at 9 liters per second. Which stream carries more sediment past its monitoring point each second, and by how much?

A. Stream A, by 9 milligrams per second
B. Stream B, by 9 milligrams per second
C. Stream A, by 4 milligrams per second
D. The streams carry equal amounts per second.

13. Two fictional cafeterias count recycling and composting as diversion and landfill the rest. A generates 120 kg, recycles 76 kg, and composts 32 kg. B generates 60 kg, recycles 36 kg, and composts 15 kg. Which cafeteria diverts a larger share, and which sends less to landfill?

A. B diverts a larger share, and B sends less to landfill.
B. A diverts a larger share, and A sends less to landfill.
C. B diverts a larger share, and A sends less to landfill.
D. A diverts a larger share, and B sends less to landfill.

14. A fictional park model gives each lighting plan two readings in the same units, first on the path and then beyond its edge. A gives (9, 1), B (13, 3), C (14, 8), and D (12, 5). Which plan keeps the path reading at least 12 while minimizing light beyond the edge?

A. Plan B
B. Plan A
C. Plan C
D. Plan D

15. Two fictional stream sites have the same dissolved oxygen reading on one day. Across several visits in the same season, observers using the same methods find stress-sensitive bottom-dwelling invertebrates at A. They find only more tolerant groups at B. Which conclusion fits the records?

A. The invertebrate records identify a specific pollutant at B.

B. The matching oxygen readings establish that both sites have identical conditions over time.

C. Site B's repeated results warrant a closer look for possible environmental stress.

D. The sensitive groups observed at A establish that A experiences zero environmental stress.