Name _____ Date _____ Period _____

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Aquatic Ecosystems

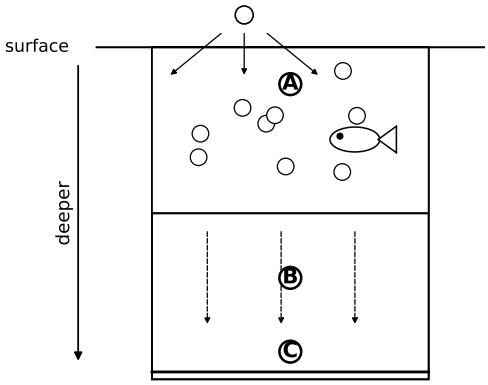
Biology

Answer in complete sentences where asked. Show your work for calculations and use the data as evidence.

1. Name the type of water for each sample. Choose from: fresh water, estuary (brackish), ocean.

Water sample	Type of water
(a) Salinity 0.2 ppt	
(b) Salinity 35 ppt	
(c) Salinity 15 ppt, where a river meets the sea	

2. The diagram shows a lake. Points A, B, and C are at different depths.



Zone boundary is where light becomes too weak for photosynthesis.

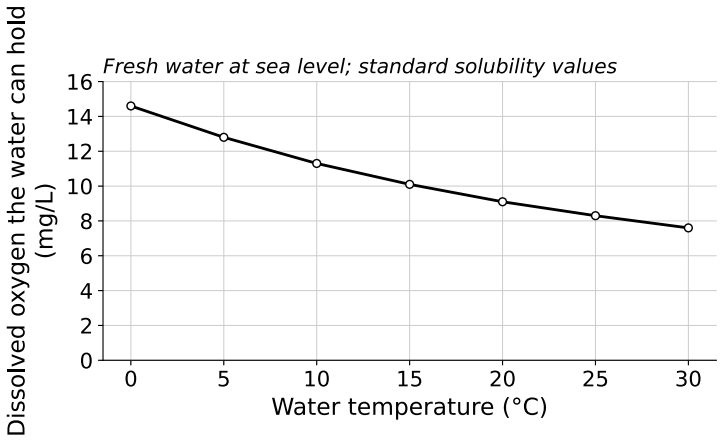
(a) Which point is in the photic zone, and which two are in the aphotic zone?

(b) Would algae be able to grow at point B? Explain.

(c) Heavy rain washes mud into the lake. Predict what happens to the depth of the photic zone.

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3. Maximum dissolved oxygen in fresh water at different temperatures.



(a) By how many mg/L is the maximum at 30 °C lower than at 0 °C? Show your setup.

(b) Fish kills in small ponds are most often reported in hot weather. Use the graph to write a claim, evidence, and reasoning that explains one reason.

4. Along some coasts, winds push surface water away from shore, and cold deep water rises (upwelling).

(a) Why does upwelling often lead to more phytoplankton at the surface?

(b) Name one way a river's water changes an estuary compared with the open ocean.

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