

Chapter 6 – Review Questions

Read Chapter 6 and answer the following questions on a separate sheet of paper.

ANSWERS MUST BE HANDWRITTEN! Typed responses will not be accepted.

1. What are *coral reefs* and *coral polyps*? How are coral reefs formed? List seven ecological and economic services that coral reefs provide. What is coral bleaching, and what are its main causes?
2. What are the two major types of aquatic life zone?
3. Distinguish among *phytoplankton*, *zooplankton*, *ultraplankton*, *nekton*, *benthos*, and *decomposers* found in aquatic life zone.
4. List four major factors determining the types and numbers of organisms found in the surface, middle, and bottom layers of aquatic systems. How do the concentrations of nutrients and dissolved oxygen vary in these three layers?
5. List six major ecological services and six major economic services provided by the world's marine systems.
6. What is the *coastal zone*? Distinguish among *estuaries*, *coastal wetlands* and *mangroves*. List three reasons why temperature and salinity vary widely in estuaries and coastal wetlands, and explain why they have such high NPP.
7. What is the *intertidal zone*? Distinguish between *rocky shores* and *sandy beaches*, and describe the major types of aquatic life found in each.
8. What are *barrier islands*? Why are they so attractive for human development and why are human structures built there so vulnerable to destruction? What function do the dunes on barrier islands and beaches serve, and what happens when they are not preserved?
9. List three reasons why coral reefs are vulnerable to damage. List eight harmful impacts of human activities on coral reefs.
10. What is the *open sea*, and what are its three major vertical zones? Why is the NPP per unit of area so low in the open sea?
11. List five major harmful human impacts on coastal zones.
12. What is *freshwater life zone*, and what are the two major types of such zones?
13. List six major ecological services and six major economic services provided by freshwater systems.
14. What is a *lake*? Distinguish among the *littoral*, *limnetic*, *profundal*, and *benthic zones* of a lake.
15. What are the three types of lakes, based on their nutrient content and primary productivity?
16. Distinguish among *surface water*, *runoff*, and *watershed*. Describe the properties and general forms of life found in the three zones of a river as it flows from mountain highlands to the sea.
17. What are inland wetlands? List six examples of such wetlands. What are *seasonal inland wetlands*?
18. List five major ecological and economic services provided by wetlands.
19. List four major harmful human impacts on freshwater systems.