



Practice Midterm Exam

***Raven, Berg, Hassenzahl: Environment, 7th Edition***  
***Chapter 06: Major Ecosystems of the World***

1. Wildfires:

- a) are not always damaging for natural environments
- b) release nutrient minerals that are previously locked in dry organic material
- c) can have an increased negative effect due to the efforts intended to prevent them
- d) are increasing do to climate change
- e) all of these

Ans: e

Difficulty: Easy

**Response:**

Chapter Opener; 6.0

2. Which of the following is a typical characteristic of desert animals?

- a) they tend to be quite large in size
- b) they remain inactive during the driest months of the year
- c) they are active throughout the day and night
- d) rodents are the only group of mammals represented in this biome
- e) amphibians and reptiles are absent

Ans: b

Difficulty: Easy

**Response:**

Deserts: Arid Life Zones; 6.1.7



Practice Midterm Exam

3. Chaparral biomes occur:

- a) only in the immediate area surrounding the Mediterranean Sea
- b) in regions with low levels of annual precipitation
- c) in areas with very fertile soil and a deep topsoil layer
- d) in areas where fires are almost nonexistent
- e) in regions around the globe with mild, rainy winters, followed by hot, dry summers

Ans: e

Difficulty: Easy

**Response:**

Thickets of Evergreen Shrubs and Small Trees; 6.1.6

4. Which of the following organizational hierarchies is correctly listed from smallest to largest unit?

- a) ecosystem → population → community → biome
- b) biome → community → population → ecosystem
- c) community → population → ecosystem → biome
- d) population → community → ecosystem → biome
- e) ecosystem → biome → community → population

Ans: d

Difficulty: Medium

**Response:**

Earth's Major Biomes; 6.1

5. A relatively distinct terrestrial region characterized by similar environmental factors regardless of where it occurs in the world is called a/an:

- a) biome
- b) community
- c) ecosystem
- d) habitat
- e) population

Ans: a

Difficulty: Easy

**Response:**

Earth's Major Biomes; 6.1



Practice Midterm Exam

6. Tundra:

- a) has an extended day length during its growing season
- b) has nutrient-rich soils
- c) is characterized by heavy precipitation
- d) experiences very long winters and long summers
- e) occurs in extreme southern latitudes

Ans: a

Difficulty: Easy

**Response:**

Cold Boggy Plains of the Far North; 6.1.1

7. The biological community that characterizes the arctic tundra is:

- 1) migrating herbivores, small mammals, and predatory birds
  - 2) large trees
  - 3) mosses, lichens, and dwarf woody plants
  - 4) diverse amphibians and reptiles
- a) 1
  - b) 2
  - c) 3
  - d) 4
  - e) 1 and 3

Ans: e

Difficulty: Easy

**Response:**

Cold Boggy Plains of the Far North; 6.1.1

8. The biome most suitable for the development of farmland is:

- a) taiga
- b) tropical rain forest
- c) temperate grassland
- d) chaparral
- e) tundra

Ans: c

Difficulty: Easy

**Response:**

Grasslands: Temperate Seas of Grass; 6.1.5



Practice Midterm Exam

9. The boreal forest:

- a) has numerous ponds and lakes formed by grinding ice sheets
- b) has warm winters
- c) has a layer of permafrost
- d) cannot support amphibians or reptiles
- e) is well suited for conversion to agriculture

Ans: a

Difficulty: Easy

**Response:**

Boreal Forests: Conifer Forests of the North; 6.1.2

10. The boreal forest is located \_\_\_\_\_ the tundra.

- a) north of
- b) south of
- c) east of
- d) west of
- e) in conjunction with

Ans: b

Difficulty: Easy

**Response:**

Boreal Forests: Conifer Forests of the North; 6.1.2

11. The biome with high amounts of precipitation, large narrow-leaved evergreen trees, and epiphytes including lichens is the:

- a) taiga
- b) temperate deciduous forest
- c) tropical rain forest
- d) boreal forest
- e) temperate rain forest

Ans: e

Difficulty: Easy

**Response:**

Temperate Rain Forests: Lush Temperate Forests; 6.1.3



Practice Midterm Exam

12. Hot summers and cold winters, topsoil rich in organic material, annual precipitation of 75 to 125 cm (30-50 in), and many hardwood trees are characteristics of the:
- a) temperate deciduous forest
  - b) temperate grassland
  - c) temperate rain forest
  - d) boreal forest
  - e) chaparral

Ans: a

Difficulty: Easy

**Response:**

Temperate Deciduous Forest: Broad-Leaved Trees that Shed their Leaves; 6.1.4

13. Tallgrass prairies do not occur in which of the following states?
- a) Iowa
  - b) Kansas
  - c) Minnesota
  - d) Florida
  - e) Illinois

Ans: d

Difficulty: Easy

**Response:**

Grasslands: Temperate Seas of Grass; 6.1.5

14. Shortgrass prairies:
- 1) are moist grasslands with rich soil
  - 2) are very similar to deserts
  - 3) have native drought-resistant grasses
  - 4) have helpful wildfires
- a) 1
  - b) 2
  - c) 3
  - d) 4
  - e) Both 1 and 4

Ans: c

Difficulty: Medium

**Response:**

Grasslands: Temperate Seas of Grass; 6.1.5



Practice Midterm Exam

15. The tallgrass prairie is currently the rarest biome in North America due to:
- a) rampant urbanization
  - b) recent climate change
  - c) industrial pollution
  - d) conversion to agriculture
  - e) both industrial pollution and conversion to agriculture

Ans: d

Difficulty: Medium

**Response:**

Grasslands: Temperate Seas of Grass; 6.1.5

16. Which of the following biomes has the highest biodiversity?
- a) temperate deciduous forest
  - b) savanna
  - c) taiga
  - d) tropical rain forest
  - e) tropical desert

Ans: d

Difficulty: Easy

**Response:**

Tropical Rain Forests: Lush Equatorial Forests; 6.1.9

17. Transpiration is the most important source of precipitation for which biome?
- a) tropical rain forest
  - b) savanna
  - c) tundra
  - d) chaparral
  - e) tropical desert

Ans: a

Difficulty: Easy

**Response:**

Tropical Rain Forests: Lush Equatorial Forests; 6.1.9



Practice Midterm Exam

18. Tropical rain forests:

- a) are typically composed of at least five distinct layers, or stories, of vegetation
- b) are found in areas with high accumulations of organic material in the soil
- c) occur in areas with ancient, mineral-poor soil
- d) are known for being only moderately productive
- e) are known for having high levels of biodiversity

Ans: c

Difficulty: Easy

**Response:**

Tropical Rain Forests: Lush Equatorial Forests; 6.1.9

19. Soil in deserts:

- a) is high in mineral content
- b) is high in organic material
- c) often contains large amounts of humus
- d) supports extensive vegetation
- e) all of these

Ans: a

Difficulty: Medium

**Response:**

Deserts: Arid Life Zones; 6.1.7

20. Mixing of water layers, which often occurs in temperate lakes due to decreasing ambient temperature, is referred to as:

- a) a thermocline
- b) turnover
- c) benthos
- d) thermal stratification
- e) blooms

Ans: b

Difficulty: Easy

**Response:**

Freshwater Ecosystems; 6.2.1



Practice Midterm Exam

21. Free-floating aquatic organisms are known as:

- a) benthos
- b) nekton
- c) pelagic inhabitants
- d) zooxanthellae
- e) plankton

Ans: e

Difficulty: Easy

**Response:**

Aquatic Ecosystems; 6.2

22. Flowing-water ecosystems, especially headwater streams, receive most of their energy from:

- a) light
- b) water
- c) wind
- d) organic detritus
- e) minerals

Ans: d

Difficulty: Medium

**Response:**

Freshwater Ecosystems; 6.2.1

23. The shallow-water area along the shore of a lake or pond is called the \_\_\_\_\_ zone:

- a) limnetic
- b) littoral
- c) profundal
- d) headwater
- e) intertidal

Ans: b

Difficulty: Easy

**Response:**

Freshwater Ecosystems; 6.2.1





Practice Midterm Exam

24. Which of the following organisms are representative of the limnetic zone?
- a) phytoplankton and zooplankton
  - b) frogs and their tadpoles
  - c) cattails and other emergent vegetation
  - d) worms, insect larvae, and crayfish
  - e) all of these

Ans: a

Difficulty: Easy

**Response:**

Freshwater Ecosystems; 6.2.1

25. The deepest zone in a large lake, below where the sunlight penetrates, is the:
- a) limnetic zone
  - b) littoral zone
  - c) profundal zone
  - d) benthic zone
  - e) intertidal zone

Ans: c

Difficulty: Easy

**Response:**

Freshwater Ecosystems; 6.2.1

26. A coastal body of water, partly surrounded by land, with input from both sea and fresh water is called:
- a) the limnetic zone
  - b) an estuary
  - c) a freshwater wetland
  - d) the oceanic province
  - e) a reef

Ans: b

Difficulty: Medium

**Response:**

Where Freshwater and Saltwater Meet; 6.2.3



Practice Midterm Exam

27. Coral reefs:

- a) may occur as barrier, fringing, or atoll formations
- b) protect coastlines from erosion
- c) are found in shallow, nutrient poor, tropical waters
- d) are the most diverse of all marine environments
- e) all of these

Ans: e

Difficulty: Medium

**Response:**

Marine Ecosystems; 6.2.4

28. The thermocline is the layer in a lake at which:

- a) pollutants are trapped and held
- b) the warm upper zone meets the cold lower zone
- c) nutrient levels are the lowest
- d) light no longer penetrates enough for photosynthesis to occur
- e) the oxygen level is the lowest

Ans: b

Difficulty: Easy

**Response:**

Freshwater Ecosystems; 6.2.1

29. Deciduous forests:

- a) have very little precipitation
- b) have very weak topsoil
- c) have trees that shed their leaves seasonally
- d) are not useful commercially
- e) are not found in the US

Ans: c

Difficulty: Easy

**Response:**

Temperate Deciduous Forest: Broad-Leaved Trees that Shed their Leaves; 6.1.4



Practice Midterm Exam

30. Which of the following does *not* apply to the tundra biome?

- a) few species are found
- b) harsh winters and short summers
- c) the biome is dominated by mosses, lichens, sedges and grasses
- d) no permafrost
- e) tundra plants seldom grow taller than 30 cm (12 in)

Ans: d

Difficulty: Easy

**Response:**

Tundra: Cold Boggy Plains of the Far North; 6.1.1

31. What are the two problems that override all other problems in the Everglades today?

- a) The Everglades receives too little water, and the water it receives is polluted with nutrient minerals from agricultural runoff.
- b) The Everglades has too many foreign species crowding out natives, and as a National Park cannot expand in size.
- c) The Everglades receives too much water, and the water it receives comes in destructive floods due to breaches in the levee system.
- d) The Everglades urban growth and expansion of agriculture into the southernmost areas are responsible for loss of biodiversity in the area.
- e) The Everglades depends on the Florida aquifer for clean, fresh water however that water is being diverted to gold courses and the aquifer is running dry.

Ans: a

Difficulty: Medium

**Response:**

Case in Point: The Everglades; 6.2.2



Practice Midterm Exam

32. All of the following apply to the tundra biome *except*:
- a) abundant average precipitation of 75 to 125 cm (30 to 50 in) per year
  - b) permafrost
  - c) nutrient-poor soils
  - d) little organic matter
  - e) long, harsh winters and short cool summers

Ans: a

Difficulty: Medium

**Response:**

Tundra: Cold Boggy Plains of the Far North; 6.1.1

33. The biomes that commonly have fire-adapted species are:
- a) temperate grassland, savanna, and boreal forest
  - b) desert, temperate grassland, and savanna
  - c) temperate grassland, savanna, and tundra
  - d) chaparral, temperate grassland, and savanna
  - e) temperate grassland, chaparral, and temperate deciduous forest

Ans: d

Difficulty: Medium

**Response:**

Chaparral: Thickets of Evergreen Shrubs and Small Trees; 6.1.6, Earth's Major Biomes; Grasslands: Temperate Seas of Grass; 6.1.5, Savanna: Tropical Grasslands; 6.1.8

34. Which of the following is *not* a biome?
- a) boreal forest
  - b) desert
  - c) mangrove forest
  - d) savanna
  - e) tundra

Ans: c

Difficulty: Medium

**Response:**

Earth's Major Biomes; Entire Section; 6.1



Practice Midterm Exam

35. Which of the following biomes is *not* known for its wood and lumber production?
- a) temperate rain forest
  - b) taiga
  - c) chaparral
  - d) temperate deciduous forest
  - e) tropical rain forest

Ans: c

Difficulty: Medium

**Response:**

Chaparral: Thickets of Evergreen Shrubs and Small Trees; 6.1.6

36. All of the following are fire-adapted *except*:
- a) African savannas
  - b) jack and ponderosa pines
  - c) most hardwood trees
  - d) bur oak
  - e) California chaparrals

Ans: c

Difficulty: Medium

**Response:**

Savanna: Tropical Grasslands; 6.1.8, Chapter Opener; 6.0,

Chaparral: Thickets of Evergreen Shrubs and Small Trees; 6.1.6

37. The dominant vegetation of the temperate rain forest includes all of the following *except*:
- a) western hemlock
  - b) Douglas fir
  - c) western red cedar
  - d) hickory
  - e) Sitka spruce

Ans: d

Difficulty: Medium

**Response:**

Temperate Rain Forests: Lush Temperate Forests; 6.1.3



Practice Midterm Exam

38. Which of the following abiotic factors does *not* typically affect biome structure?
- a) elevation
  - b) wildfires
  - c) droughts
  - d) salinity
  - e) floods

Ans: d

Difficulty: Medium

**Response:**

Earth's Major Biomes; 6.1

39. The biomes known for supporting herds of grazing animals are:
- a) temperate grassland and temperate deciduous forest
  - b) temperate grassland and savanna
  - c) temperate deciduous forest and boreal forest
  - d) boreal forest and temperate grassland
  - e) savanna and tropical rain forest

Ans: b

Difficulty: Medium

**Response:**

Grasslands: Temperate Seas of Grass; 6.1.5, Savanna: Tropical Grasslands; 6.1.8

40. Which of the following does *not* apply to a biome?
- a) level of ecological organization above ecosystem
  - b) boundaries are determined by climate barriers
  - c) near poles temperature overrides climate
  - d) usually confined to a relatively small geographical area
  - e) in tropical and temperate regions precipitation is more significant than temperature

Ans: d

Difficulty: Medium

**Response:**

Earth's Major Biomes; 6.1



Practice Midterm Exam

41. Which of the following statements about desert inhabitants is *not* true?
- a) Both annual and perennial plants live in the desert.
  - b) Desert animals typically have adaptations for conserving water, but plants require no special adaptations.
  - c) Many desert plants are protected from predation by thorns and toxins.
  - d) Desert animals are typically small and nocturnal.
  - e) All of these are true

Ans: b

Difficulty: Medium

**Response:**

Deserts: Arid Life Zones; 6.1.7

42. Which of the following is *not* a major component of desert animal life?
- a) insects
  - b) reptiles
  - c) amphibians
  - d) owls
  - e) rodents

Ans: c

Difficulty: Medium

**Response:**

Deserts: Arid Life Zones; 6.1.7

43. Which of the following characterizes both the savanna and chaparral biomes?
- a) periodic fires
  - b) extensive stands of trees
  - c) large herds of herbivorous mammals
  - d) soils with high mineral content
  - e) moist summers and dry winters

Ans: a

Difficulty: Medium

**Response:**

Savanna: Tropical Grasslands; 6.1.8, Chaparral: Thickets of Evergreen Shrubs and Small Trees; 6.1.6



Practice Midterm Exam

44. Which of the following is *not* important in determining the distribution of organisms in aquatic biomes?
- a) light penetration
  - b) mineral nutrient concentrations
  - c) water
  - d) salinity
  - e) waves and currents

Ans: c

Difficulty: Medium

**Response:**

Aquatic Ecosystems; Entire Section; 6.2

45. Which of the following does *not* apply to headwater flowing streams?
- a) small streams
  - b) usually highly oxygenated
  - c) shallow and swift flowing
  - d) cold
  - e) cloudy due to suspended particles

Ans: e

Difficulty: Medium

**Response:**

Freshwater Ecosystems; 6.2.1

46. Which of the following does *not* apply to the profundal zone of a large lake?
- a) no light penetration
  - b) it is the deepest zone
  - c) effective recycling of minerals
  - d) lacks oxygen (anaerobic)
  - e) a mineral-rich zone

Ans: c

Difficulty: Medium

**Response:**

Freshwater Ecosystems; 6.2.1





Practice Midterm Exam

47. Which of the following does *not* apply to freshwater wetlands?

- a) anaerobic conditions
- b) accumulate organic material
- c) water-tolerant vegetation
- d) increase potential for flooding
- e) help to purify groundwater

Ans: d

Difficulty: Medium

**Response:**

Freshwater Ecosystems; 6.2.1

48. Which of the following is *not* found at the boundary between terrestrial and aquatic ecosystems?

- a) estuary
- b) oceanic province
- c) mangrove forest
- d) salt marsh
- e) intertidal zone

Ans: b

Difficulty: Easy

**Response:**

Marine Ecosystems; 6.2.4

49. Ecosystem services supported by the estuarine environment include all of the following *except*:

- a) biological habitat
- b) trapping pollution
- c) groundwater supply
- d) storm buffering
- e) marinas

Ans: e

Difficulty: Easy

**Response:**

Freshwater Ecosystems; 6.2.1



Practice Midterm Exam

50. Which of the following manmade structures were created to prevent flooding and provide drainage to the Florida Everglades?
- a) pump stations
  - b) levees
  - c) canals
  - d) all of these
  - e) both pump stations and levees

Ans: d

Difficulty: Easy

**Response:**

Case in Point: The Everglades; 6.2.2

51. What do inhabitants of the rocky intertidal zone *not* do to protect themselves?
- a) follow tides in and out
  - b) use an anchor or some other means of attachment
  - c) seal in moisture with a closing shell or other adaptations
  - d) hide under rocks
  - e) none of these, all are adaptations to the rocky intertidal zone

Ans: e

Difficulty: Medium

**Response:**

Marine Ecosystems; 6.2.4

52. Which of the following would *not* be found exclusively in the benthic environment?
- a) seagrass beds
  - b) coral reefs
  - c) oysters, clams, and barnacles
  - d) kelp forests
  - e) nekton

Ans: e

Difficulty: Medium

**Response:**

Marine Ecosystems; 6.2.4



Practice Midterm Exam

53. Which of the following pairs is incorrect?

- a) tide pool – spider crabs
- b) supratidal (splash zone) – cyanobacteria
- c) intertidal zone – mussels
- d) subtidal zone – sea urchins
- e) euphotic zone – photosynthesis

Ans: a

Difficulty: Medium

**Response:**

Marine Ecosystems; 6.2.4

54. Which of the following is *not* a source of human impact on the marine environment?

- a) coastal development, both residential and industrial
- b) global warming
- c) trash
- d) increased levels of O<sub>2</sub>
- e) chemical pollution from pesticides, heavy metals, and synthetic chemicals

Ans: d

Difficulty: Medium

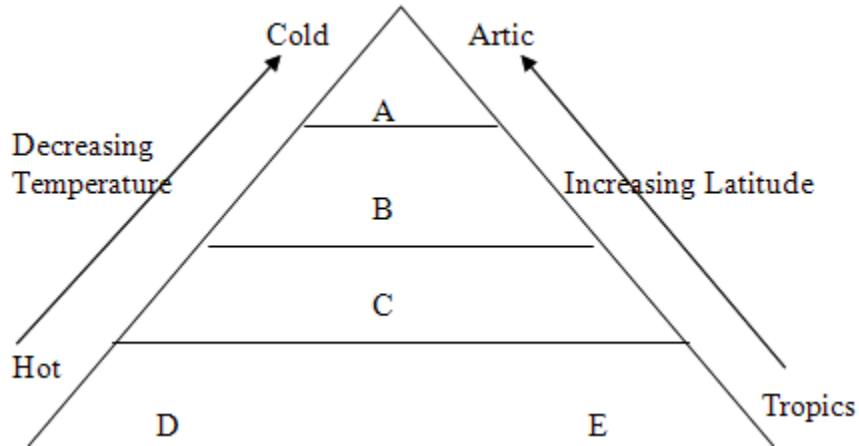
**Response:**

Marine Ecosystems; 6.2.4



Practice Midterm Exam

55. According to the diagram below, desert biomes would fall into the area marked by the letter:



- a) a
- b) b
- c) c
- d) d
- e) e

Ans: e

Difficulty: Medium

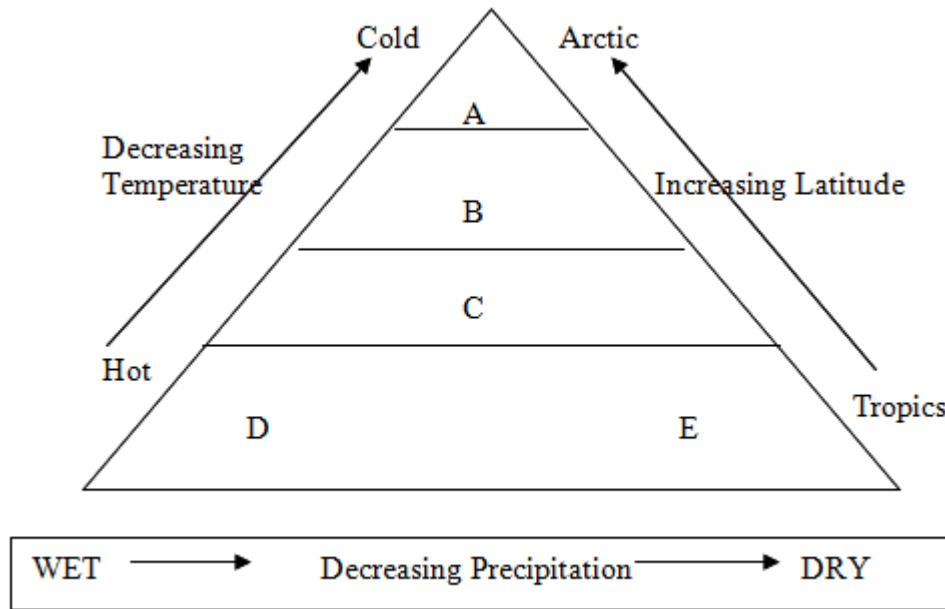
**Response:**

Deserts: Arid Life Zones; 6.1.7



Practice Midterm Exam

56. You are lost. Over time, you find that the area that you are in has relatively stable temperatures and abundant rainfall. The plants and animals you see in the area are consistent with those you know to be associated with temperate deciduous forests. Which letter marks the area you are in?



- a) a
- b) b
- c) c
- d) d
- e) e

Ans: c

Difficulty: Medium

**Response:**

Temperate Deciduous Forest: Broad-Leaved Trees that Shed their Leaves; 6.1.4



Practice Midterm Exam

57. Which biome is mismatched with the statement that follows it?
- a) tropical rain forest - plants grow in layers: canopy, understory
  - b) tundra: most fragile biome on this planet
  - c) boreal forest: well suited for agriculture because of short growing season and mineral-poor soil
  - d) tropical grassland: trees and grasses have fire-adapted features such as extensive underground root systems.
  - e) desert: plant cover is sparse and soil is low in organic material but high in mineral content

Ans: c

Difficulty: Medium

**Response:**

Boreal Forests: Conifer Forests of the North; 6.1.2

58. Humid tropical rain forests have extraordinary biological diversity:
- a) because of the abundance of nutrient minerals in tropical soils
  - b) due to human intervention in planting rare and endangered species
  - c) because of the many pollinators that also call the tropical rain forest home
  - d) due to local factors, such as varying soil fertility and topography
  - e) its plants capture a lot of energy by photosynthesis

Ans: d

Difficulty: Medium

**Response:**

Tropical Rain Forests: Lush Equatorial Forests; 6.1.9



Practice Midterm Exam

59. Which of the following human impact is mis-matched with the detrimental effect it has had on a biome?
- a) oil and natural gas exploration: long-lasting injury due to slow regeneration of the tundra
  - b) mining, drilling for gas and oil, and farming: loss of boreal forest (deforestation)
  - c) overharvesting of old-growth forest: loss of temperate rain forest habitat for endangered and threatened species
  - d) off-road vehicle damage and military exercises: erosion and loss of vegetation in the desert
  - e) hunting and fishing: desertification of the savanna, tropical grasslands

Ans: e

Difficulty: Medium

**Response:**

Savanna: Tropical Grasslands; 6.1.8

60. Wetlands are important for all of the following reasons *except*:
- a) they support high species diversity
  - b) they reduce flooding by slowing the velocity of runoff water
  - c) they help recharge groundwater aquifers
  - d) they contribute to asymmetry in urban communities
  - e) they sometimes detoxify substances in the water

Ans: d

Difficulty: Medium

**Response:**

Freshwater Ecosystems; 6.2.1

61. National Marine Sanctuaries include:
- a) kelp forests in off the coast of California
  - b) coral reefs in the Florida Keys
  - c) fishing grounds along the continental shelf
  - d) deep submarine canyons
  - e) all of these

Ans: e

Difficulty: Medium

**Response:**

Marine Ecosystems; 6.2.4



Practice Midterm Exam

62. The benthic environment includes all the following except
- a) the bathyal zone
  - b) the ocean floor from the intertidal zone to the deep ocean trenches
  - c) the abyssal zone
  - d) the bendal
  - e) the hadal zone

Ans: d

Difficulty: Easy

**Response:**

Marine Ecosystems; 6.2.4

63. Humans harm the oceans in all of the following ways *except*:
- a) developing along the coast
  - b) polluting the land
  - c) recycling
  - d) killing marine life with trash
  - e) by adding chemicals from agriculture and industry

Ans: c

Difficulty: Easy

**Response:**

Marine Ecosystems; 6.2.4

64. Which of the following can be found in kelp forests?
- a) crabs
  - b) tube worms
  - c) sea cucumbers
  - d) sea otters
  - e) all of these

Ans: e

Difficulty: Medium

**Response:**

Marine Ecosystems; 6.2.4





Practice Midterm Exam

65. The most fundamental division in aquatic ecology is

- a) salinity
- b) sunlight
- c) estuaries
- d) biomes
- e) differences in sea life

Ans: a

Difficulty: Medium

**Response:**

Aquatic Ecosystems; 6.2

66. Compare and contrast the alpine tundra and the arctic tundra.

Ans: Both the alpine tundra and the arctic tundra are characterized by treeless, boggy plains covered by lichens and small plants. Both have areas of permanently frozen ground (permafrost) and little precipitation. The tundras have low species richness, low primary productivity, and are extremely fragile areas. Alpine tundra is located in the higher elevations of mountains, above the tree line. Arctic tundra is located in the extreme northern latitudes wherever the snow melts seasonally.

Difficulty: Difficult

**Response:**

Tundra: Cold Boggy Plains of the Far North; 6.1.1