

Name _____

SSN# _____

True or False (1 point each) Mark A = True; B = False

1. The Miller-Urey experiment demonstrated that organic molecules can be formed in the absence of life.
2. Current evidence indicates that prokaryotes evolved before eukaryotes.
3. Infauna refers to organisms that live symbiotically inside other organisms.
4. The euphotic zone is the deepest part of the ocean.
5. Very few marine organisms are susceptible to viral infections.
6. Sponges are sessile organisms.
7. Sharks have cartilaginous skeletons.
8. All sharks have large teeth for shredding their prey.
9. All whales use echolocation to locate their prey.
10. Studies of whale falls have shown that they may serve as stepping stones for hydrothermal vent species.
11. Only invertebrates are known to filter feed.
12. Scavengers get their food by feeding on dead animals and detritus.
13. The euphotic zone refers to the zone of the ocean receiving no sunlight.
14. Most corals in Hawaii are being damaged by pollution.
15. The most delicate corals on a reef tend to grow in the buttress zone.
16. Most organisms in the deep sea depend on food falling down from the surface.
17. Salt marshes are restricted to tropical regions.
18. Photosynthesis is always highest in the upper few meters of the ocean where light is strongest.
19. Bacteria feed using cilia to move small particles toward their mouth.
20. Minimata disease resulted from bioaccumulation of mercury.
21. High nutrient, low chlorophyll regions of the ocean are typically light-limited.

- 22. A heterotroph uses organic material produced by other organisms for food.
- 23. Photoautotrophic bacteria make their own food by photosynthesis.
- 24. Dolphins can be distinguished from porpoises by their curved dorsal fin.
- 25. A population consists of two or more competing species.

Multiple Choice (2 points each)

- 26. Which of the following is NOT one of the five kingdoms of life
 - A. Prokaryota
 - B. Plantae
 - C. Polychaeta
 - D. Animalia
- 27. Which of the following continuously increases with depth in the ocean
 - A. Light
 - B. Pressure
 - C. Salinity
 - D. Organic material
- 28. The coastal zone lying just above the highest high tide is known as the
 - A. sublittoral
 - B. spray zone
 - C. neritic
 - D. intertidal
- 29. Which of the following does not belong to the Kingdom Protista?
 - A. Archaea
 - B. Radiolarian
 - C. Foraminifera
 - D. Ciliate
- 30. Which of the following is NOT radially symmetric
 - A. anemone
 - B. jellyfish
 - C. coral
 - D. squid
- 31. Lunate caudal fins (pictured at right) is used for
 - A. Fast acceleration
 - B. Maximum maneuverability
 - C. High-speed cruising
 - D. Slow swimming with lift

Lunated



32. Which of the following is not true of hagfish
- A. Has no jaws
 - B. Can tie its body in a knot
 - C. Secretes lots of slime when disturbed
 - D. Is an ambush predator
33. Whales on the sea floor are decomposed by assemblages of organisms in three main stages characterized by 1) mobile scavengers 2) enrichment opportunists and 3)
- A. hagfish
 - B. chemoautotrophic bacteria
 - C. rattails
 - D. photoautotrophic bacteria
34. In photosynthesis sugars are made from carbon dioxide and
- A. water
 - B. nitrogen
 - C. methane
 - D. hydrogen sulfide
35. Hydrothermal vents are home to bacteria that get energy by oxidizing (burning):
- A. Carbon dioxide
 - B. hydrogen sulfide
 - C. water
 - D. sulfate
36. A reef separated from land by a lagoon is known as a
- A. fringing reef
 - B. reef face
 - C. reef terrace
 - D. barrier reef
37. A pattern of productivity characterized by a single large summer time bloom would be expected in what region?
- A. Temperate
 - B. Polar
 - C. Tropical
 - D. Coastal upwelling
38. For the past few years, the fish catch per capita has been
- A. Declining
 - B. Rising sharply
 - C. Less than that from farmed fish
 - D. Equal to that from farmed fish
39. The largest number of fish that can be taken without depleting future stocks is known as
- A. Maximum sustainable yield

- B. Maximum harvest potential
 - C. The bycatch
 - D. The optimal profit margin
40. Organisms that spend only part of their life in the plankton are known as
- A. holoplankton
 - B. epifauna
 - C. meroplankton
 - D. pelagic

Short Answer (4 points each):

Answer any 5 of the following questions. If you answer more, we only grade the first five you answered in the order they appear.

1. What a larvacean “house” and what is it used for?

2. What are two features of Mysticete whales that distinguish them from Odontocetes?

3. Provide a brief explanation of the compensation depth.

4. Give an example of a symbiosis, state which kind of symbiosis it is and why.

5. Name two different types of filter feeding organisms.

6. Name two factors that lead to zonation in the rocky intertidal.

7. What are two types of contamination that one might find in shellfish?

8. Make up your own question about the marine environment (different from any question on this exam) and then answer it.