

1. What zone of the ocean is found over the continental shelf ?
 - a. Littoral
 - b. Neritic**
 - c. Pelagic
 - d. Intertidal

2. The tides on Earth are mostly caused by
 - a. Wind
 - b. The sun
 - c. Weather
 - d. The moon**

3. The level of the ocean to which light can penetrate, but not sufficiently for photosynthesis to occur is known as
 - a. Epipelagic
 - b. Aphotic
 - c. Dysphotic**
 - d. Bathypelagic

4. The term "eutrophication" refers to
 - a. An increase in the amount of nutrients in the water**
 - b. An increase in the number of algae in the water
 - c. A decrease in the amount of animals in the water
 - d. An immediate sudden loss of nutrients in the water

5. Any place in the ocean where there is a sudden change in the nature of the water is called a
 - a. Cline**
 - b. Current
 - c. Upwelling
 - d. El Niño

6. When El Niño occurs the thermocline in the eastern Pacific
 - a. is higher than usual
 - b. disappears
 - c. is depressed**
 - d. reverses its flow

7. Which of the following does the U.S. Coast Guard recommend to block the movement of invasive species?
- the boat be left out of the water for a few days
 - Remove all visible vegetation from your boat, propeller, anchor, trailer and any other equipment or objects that were in the water
 - Drain and flush the motor, live well, bilge and transom wells with hot water.
 - All of the above**
8. The Coriolis Effect always causes movement
- To the right
 - To the left
 - To north
 - In different directions depending on the hemisphere.**
9. Organisms at the bottom of the food chain are known as
- Benthic
 - Epifauna
 - Primary producers**
 - Algae
10. Organisms which can swim against the current are known as
- Plankton
 - Algae
 - Nekton**
 - None of these
11. What is the point from which east and west is measured in navigation?
- The international date line
 - The Greenwich meridian**
 - The great circle
 - None of these
12. What important organisms "fix" nitrogen?
- Cyanobacteria**
 - Protists
 - Autotrophs
 - Heterotrophs

13. Which of the following is mammal?
- a. Sharks
 - b. Manatees**
 - c. Penguins
 - d. All are mammals
14. Magic
- a. Is practiced when risk is high**
 - b. Is practiced when risk is low
 - c. Operates the same way prayer does
 - d. Is involved with supplications rather than manipulation
15. Which of the following shows decreasing amounts of light in the ocean?
- a. Euphotic, aphotic, dysphotic
 - b. Aphotic, dysphotic, Euphotic
 - c. Euphotic, dysphotic, aphotic**
 - d. Dysphotic, euphotic, aphotic
16. By catch refers to
- a. Fish fed to the crew
 - b. Fish that can be bought by people on shore
 - c. Fish caught accidentally and are not the kind the fishermen were after**
 - d. Fish that have been caught by fishing equipment that has gotten loose
17. What term is used to define the greatest catch of a species that will ensure the long term viability of the species?
- a. Maximum sustainable yield**
 - b. Minimum sustainable yield
 - c. By catch
 - d. Recruitment overfishing
18. To what does Biomagnification refer?
- a. Studying small organisms under a microscope
 - b. Sudden growth in biological forms
 - c. Increasing amounts of a substance at higher trophic levels from consuming organisms at lower levels**
 - d. A higher position in the trophic levels

19. Rituals that mark changes in status are known as
- a. Puberty rituals
 - b. Marriages
 - c. Rites of passage**
 - d. Funerals
20. Animals born as sea and spend most of their lives in fresh water are known as
- a. Catadromous**
 - b. Anadromous
 - c. Cartilaginous
 - d. Osteichthyes
21. What term is used to describe using categories from one's own culture to analyze another?
- a. Cultural relativism
 - b. Ethnocentrism**
 - c. Moral absolutism
 - d. Moral relativism
22. People who have been not been initiated by a "crossing the line" ceremony are known as
- a. Pollywogs**
 - b. Shellbacks
 - c. Blue noses
 - d. Asian dragons
23. Technically, myths are defined as
- a. Stories that happened to known people
 - b. Stories that are just made up and are not true
 - c. Stories believed to be true and sacred**
 - d. None of these
24. Which of the following has treaty rights that involve whaling?
- a. Makah**
 - b. Tlingit
 - c. Kwakiutl
 - d. Iroquois

25. What is the primary division made by biologists for all life forms?
- a. Vertebrates vs. invertebrates
 - b. Plants vs. animals
 - c. Eukaryotes vs. Prokaryotes**
 - d. Archaea vs Bacteria

CONGRATULATIONS! YOU ARE AT THE HALFWAY POINT!

26. The largest oil spill at sea was
- a. Deep Water Horizon**
 - b. Exxon Valdez
 - c. El Faro
 - d. Costa Concordia
27. The cause of the Minamata disease was
- a. Radiation
 - b. Mercury**
 - c. Cadmium
 - d. Lead
28. Which of the following has been involved with whaling?
- a. Bequia
 - b. The U.S.
 - c. Iceland
 - d. All of these**
29. In the article "Counting the Last Fish" the authors hold that
- a. The fishing industry is recovering
 - b. Fish farming, regardless of the kind of fish farmed is a good solution
 - c. Farmed salmon consume three times as much food as they produce**
 - d. There is no need to create "no take zones"
30. Which whale has made a remarkable come-back
- a. Blue whales
 - b. Atlantic right whales
 - c. California Gray Whale**
 - d. None have made a comeback

31. What is the lowest percentage of oil from an oil spill needs to be cleaned for the clean up to be considered successful?
- a. 1% - 5%
 - b. 5% - 10%
 - c. 10% - 15%**
 - d. 25%
32. Micro beads are generally found in
- a. Shampoos, tooth paste and other cleansing products**
 - b. In electrical transformers where they absorb heat
 - c. Paper products
 - d. All of these
33. Among the dangers of plastic in the water is that
- a. They regularly clog up sewerage treatment plants
 - b. They are a danger to sharks and other large predators
 - c. They are mistaken for jellyfish and eaten by sea turtles**
 - d. All of these
34. The U.S Coast Guard can impose a fine for failing to report an oil spill of up to
- a. \$100 a day
 - b. \$1,000 a day
 - c. \$45,000 a day or 3 times the cost of the clean up.**
 - d. \$1,000,000 a day
35. One solution proposed in one of the articles to offset falling population of fish is to
- a. abolish government subsidies that keep otherwise unprofitable fishing fleets afloat
 - b. to maintain — or, where necessary, reestablish — the structure and function of the ecosystems within which fisheries are embedded
 - c. implement “no take zones
 - d. all of these**
36. Most human generated oil in the ocean comes from
- a. Run off from the land**
 - b. Oil seeps in the ocean
 - c. Accidental spills from ships and oil rigs
 - d. All of these

37. The overfishing of haddock and pollack fish lead to
- The demise of sea urchins
 - The demise of kelp forests**
 - An increase in the number of sea otters
 - An increase in the number of seals
38. An object is photodegradable if breaks down when it is
- Exposed to specific life forms
 - Exposed to light**
 - Exposed to certain chemicals
 - Photographed
39. Which of the following will last the longest in the environment
- Glass**
 - Banana peels
 - Leather
 - Aluminum cans
40. If something is adsorbent it
- Is taken into a material
 - Will cling to a material**
 - Will be expelled from a material
 - Will degrade upon touching a material
41. Environmental legislation deals
- Only with oil spills and ways to handle the oil
 - Deals only with heavy metals in the water
 - Deals specifically with marine mammals and invasive species
 - Deals with a variety of legislations concerning the ocean, air, and animals.**
42. Blue economy deals with
- A depressed economy
 - The economics of industries involved with the ocean**
 - Rising levels of employment
 - None of these
43. The use of the ocean for power from non-fossil fuel has been tried in
- Undersea volcano power
 - Tsunami power
 - Tidal power**
 - Steam power

44. Which of the following is true about El Niño
- a. It slows down or stops upwelling in the Eastern Pacific
 - b. It causes problems for many animals
 - c. It played a role in increasing CO₂ in the atmosphere
 - d. All of the above**
45. Which kind of breaker causes the most beach erosion?
- a. Spilling
 - b. Surging**
 - c. Plunging
 - d. None of these
46. The most recent advance in cleaning oil spills involves
- a. skimmers
 - b. boomers
 - c. large plastic nets
 - d. magnetism**
47. Which is a factor in stock recovery
- a. The number of surviving individuals
 - b. Gestation period
 - c. Number of births at one time
 - d. All of these**
48. Which of the following can have a negative impact on marine organisms
- a. Salinity
 - b. Temperature
 - c. Large scale weather phenomenon
 - d. All of these**
49. Residence time refers to
- a. How long an element stays in a given sphere**
 - b. How long an organism stays in its ecological niche
 - c. How long a sperm whale can stay under water
 - d. None of these
50. What is the number of this course?
- a. EESC 101
 - b. EESC 1050 (Mercifully none of you got this wrong!)**
 - c. EESC 1001
 - d. EESC 1

EXTRA CREDIT QUESTION BASED ON THE MUSEUM EXHIBITS

(1 point for each correct answer added to the grade on the final exam)

1. Which animal dominates the Hall of Ocean Life exhibit at AMNH?
 - a. Killer whale
 - b. White shark
 - c. **Blue whale**
 - d. The Titanosaur

2. What "clue" is there from some of the weapons in the Peoples of the Pacific Hall that they are a maritime people?
 - a. they are made from whale teeth
 - b. **they are made from shark teeth**
 - c. they use poisons on spears from poisonous jelly fish
 - d. they use fish nets as weapons to catch people

3. What kind of organization is there to the upper level of the Hall of Ocean Life?
 - a. cases are arranged by animal species
 - b. cases are arranged by different oceans
 - c. cases are arranged by different depths
 - d. **cases are arranged by different environments**

4. What does the Hall of Biodiversity say are the major causes of the disruption of the environment?
 - a. need for food for growing populations
 - b. the introduction of organisms from outside the area
 - c. **both a and b**
 - d. none of these

5. There are exhibits in the Hall of Ocean Life that
 - a. **depict prehistoric oceans**
 - b. explain the way the surface and subsurface currents of the oceans work
 - c. discuss the problems of researching the ocean
 - d. show the evolutionary steps which led to the whales evolving from land animals to marine mammals.