

4-H MARINE ECOLOGY EVENT

SECTION 5: MULTIPLE CHOICE STUDY QUESTIONS

INTERMEDIATE LEVEL (11-13 years old)

MARINE PLANTS

1. Which of the following is NOT true about seaweeds?
 - a. they have no true roots, stems, or leaves
 - b. sargassum weed is an example
 - c. they are producers
 - d. they produce flowers
2. Some seaweeds attach themselves to the ocean floor by
 - a. a holdfast
 - b. a stem
 - c. a root
 - d. using a special glue
3. Which mangrove can be identified by its prop-like roots?
 - a. black mangrove
 - b. red mangrove
 - c. white mangrove
 - d. buttonwood
4. Sea grasses are
 - a. a type of algae that looks like a grass
 - b. a type of flowering plant that provides food and hiding places for marine animals
 - c. found on sand dunes along beaches
 - d. found on mud flats
5. Name the floating seaweed found off Florida's coast that provides a home to many sea animals.
 - a. shaving brush algae
 - b. codium
 - c. sargassum weed
 - d. Gracilaria

MARINE ANIMALS

6. Which of the following is NOT true about a sponge?
 - a. they pump and filter water through their body
 - b. they provide a home for many little animals
 - c. they have a heart, gills, and appendages
 - d. they grow on the sea floor
7. The part of a jellyfish that contains the cells that can sting you is/are the
 - a. umbrella
 - b. tentacles
 - c. fin
 - d. arms

8. A polyp refers to a
- coral animal
 - jellyfish
 - young sponge
 - type of fish
9. A sea anemone
- is a cnidarian
 - has a mouth surrounded by tentacles
 - has stinging cells
 - all of the above
10. Conchs, sea slugs, and clams are in the group of animals called
- mollusks
 - arthropods
 - sponges
 - chordates
11. Which of the following is NOT true of an octopus?
- it is an arthropod
 - it can change color according to its mood or background
 - it is quite intelligent and can be trained to do tricks
 - it has tentacles with suction cups
12. A starfish is a/an
- annelid
 - mollusk
 - arthropod
 - echinoderm
13. Which of the following is NOT true of echinoderms?
- They have stinging cells
 - They have spiny skin
 - Most move by using little suction cup like feet
 - They include sand dollars and sea cucumbers
14. Which of the following is NOT true of crabs?
- They have jointed appendages (like legs)
 - They must shed their shell as they grow
 - They only eat plants
 - They have compound eyes
15. Hermit crabs
- have a soft abdomen and must protect it
 - use the shell of a mollusk to help protect themselves
 - must change shells as they grow
 - all of the above

16. Male fiddler crabs
- are found around coral reefs
 - dig holes in shallow muddy areas of salt marshes
 - run around a sandy beach at night
 - climb into mangrove trees
17. One of the most commercially important crabs in Florida is the
- fiddler crab
 - lobster
 - blue crab
 - giant spider crab
18. Which of the following statements is TRUE about the horseshoe crab?
- It is more closely related to a spider
 - It can sting you with its tail
 - It can grow up to 5 feet long
 - It can swim like fish using its whip-like tail
19. When a crab molts ...
- it sheds its old shell and grows a new one
 - its body/shell is soft afterwards
 - it must find a safe hiding place, away from predators
 - all of the above
20. Most barnacles are found
- along the deep sea floor
 - around coral reefs
 - within the intertidal zone
 - up rivers in fresh water
21. Where do ghost crabs live?
- on mud flats
 - on a coral reef
 - on a sandy beach
 - on sea walls
22. Sharks are different from other fish such as snappers and grunts because they have
- a body made of cartilage instead of bone
 - smooth skin that lack scales
 - fins
 - a bony jaw
23. Which fish has poisonous spines in its fins?
- great barracuda
 - catfish
 - flounder
 - tarpon

24. The tail of a fish is called the _____ fin.
- anal fin
 - pectoral
 - pelvic
 - caudal
25. The part of a fish that detects vibrations in the water is the
- lateral line
 - scale
 - ear
 - air bladder
26. Most bony fish maintain their buoyancy because they
- have air pockets under their scales
 - have a swim bladder
 - hold air in their lungs
 - have oxygen in their gills
27. Which of the following would be considered important inshore sport fish in Florida?
- tuna and swordfish
 - halibut and salmon
 - seatrout and redfish
 - mullet and grouper
28. The largest grouper that can be found off the coast of Florida is the (up to 680 lbs!)
- red grouper
 - goliath grouper
 - yellowfin grouper
 - gag grouper
29. As soon as baby sea turtles hatch, they
- are attracted to and can head toward bright street lights
 - instinctively head toward the ocean
 - can become prey for hungry birds and other beach animals
 - all of the above
30. The most common nesting sea turtle in Florida is the
- loggerhead
 - Kemp's ridley
 - leatherback
 - green turtle
31. Sea turtles eggs feel like and are shaped like
- chicken eggs
 - soft ping-pong balls
 - fish eggs
 - an ostrich egg

32. Which of the following birds have long bills and long legs for wading in the water?
- pelicans
 - cormorants
 - egrets
 - sea gulls
33. Cormorants often sit and hold their wings out in order to
- dry their wings since they have no oil glands to waterproof their feathers
 - warm the underside of their wings
 - to appear larger so they can scare predators away
 - attract a mate
34. Which species of bird is most threatened by discarded fishing line based on its habit of hanging around fishing docks and diving after fish?
- sea gull
 - osprey
 - heron
 - pelican
35. Which bird uses its sharp talons to catch and hold its food?
- pelican
 - sea gull
 - osprey
 - egret
36. What small whale is common off the Florida coast?
- killer whale
 - blue whale
 - dolphin
 - manatee
37. Manatees are
- carnivores
 - omnivores
 - herbivores
 - scavengers

MARINE HABITATS/ECOSYSTEMS

38. Which of the following is NOT true of plankton?
- They are floating plants and animals in the water
 - All are too small and must be seen with the aid of a microscope
 - Examples are diatoms and copepods
 - They depend on ocean currents for their survival
39. Which is an example of phytoplankton?
- arrow worm
 - diatom
 - copepod
 - zoea

40. Which is an example of zooplankton?
- jellyfish
 - dinoflagellate
 - diatom
 - shark
41. Which animal is least likely to be found in an estuary?
- sailfish
 - shrimp
 - bonnethead shark
 - Florida crown conch
42. Which of the following is most likely to be found in a salt marsh?
- cordgrass (Spartina)
 - corals
 - grouper
 - tuna
43. Brackish water is
- saltwater and freshwater mixed together
 - saltwater that is higher in salt than normal
 - polluted saltwater
 - polluted freshwater
44. Where could you find brackish water?
- in an estuary
 - around mangroves
 - in salt marshes
 - all of the above
45. Decaying plant and animal matter that provides food for many animals in an estuary is called:
- detriment
 - sand
 - detritus
 - peat
46. The shape or slope of a beach is dependent on
- wind direction and speed
 - wave action
 - the type of sand that is found there
 - all of the above
47. Which of the following is NOT true about Florida's sandy beaches?
- Most animals that live on a sandy beach must hide in the sand
 - Beach erosion is a major problem on Florida's beaches
 - All of Florida's beaches are made of the same material
 - Humans have altered the way sand moves on the beach

48. Which of the following birds is LEAST likely to be found on Florida's sandy beaches?
- pelican
 - laughing gull
 - wood duck
 - plovers
49. Salt marshes
- provide a nursery for the young of many animals
 - protect the land by absorbing the wave action and high water of major storms
 - help to filter and clean the water that enters the ocean
 - all of the above are true
50. Which type of mangrove is usually found closest to the water?
- red mangrove
 - black mangrove
 - white mangrove
 - buttonwood
51. Mangroves provide
- hiding places for young fish
 - nesting areas for egrets and herons
 - a buffer for the land against high winds and waves
 - all of the above are true
52. The dominant plant life in a salt marsh would be
- trees and shrubs
 - grasses and rushes
 - sea weed and sea grasses
 - red algae
53. Which of the following is NOT a type of sea grass?
- manatee grass
 - turtle grass
 - St. Augustine grass
 - shoal grass
54. Which of the following is the most appropriate food chain for a salt marsh?
- phytoplankton is eaten by oyster, oyster eaten by crab, crab eaten by egret
 - zooplankton eats phytoplankton, phytoplankton eats fish, fish eats turtle
 - grouper eats smaller fish, smaller fish eats lobster, lobster eats sea anemone
 - pompano eat sand fleas, sand fleas eat zooplankton, zooplankton eat phytoplankton
55. A food chain always begins with a
- carnivore
 - producer
 - omnivore
 - herbivore

56. A benthic animal is one that
- swims near the surface
 - floats near the surface
 - lives on the bottom of the ocean
 - lives on a beach above high tide
57. Which of the following is an example of a nektonic animal?
- white shark
 - crab
 - sponge
 - sea gull
58. An animal that would eat both plant and animals in its diet is called a/an
- carnivore
 - herbivore
 - omnivore
 - producer
59. Florida's Gulf Stream is a
- warm surface current that travels south to north along the Atlantic Coast
 - very deep cold water current that moves south along our coast
 - cold surface current that moves from north to south along our coast
 - surface current that travels around the Gulf of Mexico
60. A whale uses _____ to find other objects in the water
- echolocation
 - its ears
 - its eyes
 - its lateral line