Name _____ Date _____ Class _____

CHAPTER 32 TEST PREP PRETEST

Echinoderms and Invertebrate Chordates

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

_____ 1. An animal whose mouth develops from the blastopore is called a
a. deuterostome.
b. protostome.
c. cephalostome.
d. pseudocoelom.

_____ 2. Echinoderms share all of the following characteristics EXCEPT
a. an endoskeleton composed of ossicles.
b. a radially symmetrical body plan in adulthood.
c. a water-vascular system.
d. a notochord.

_____ 3. Animals that have their body parts arranged around a central point are said to be
a. asymmetric.
b. radially symmetrical.
c. bilaterally symmetrical.
d. spherically symmetrical.

_____ 4. Deuterostomes include all of the following EXCEPT
a. vertebrates.
b. sea stars.
c. arthropods.
d. tunicates.

_____ 5. The water-vascular system of echinoderms functions as a
a. means of movement.
b. gas exchange system.
c. waste excretion system.
d. All of the above

_____ 7. Chordates are characterized by all of the following EXCEPT
a. radial symmetry.
b. pharyngeal slits.
c. a tail that extends beyond the anus.
d. a dorsal, hollow nerve cord.

_____ 8. The endoskeleton of chordates allows them to
a. swim through water.
b. grow large and move quickly.
c. swing their bodies from side to side.
d. All of the above

_____ 9. The adult tunicate develops a tough sac around its body called a(n)
a. tunic.
b. scale.
c. endoskeleton.
d. ossicle.

_____ 10. Tunicates and lancelets are similar in that both
a. are sessile.
b. are covered with a tunic.
c. are invertebrate chordates.
d. have backbones.

_____ 11. Which of the following invertebrate chordates is sessile?
a. sea star
b. tunicate
c. lancelet
d. hydra

• • • • • • • • • • • • • • •

Circle T *if the statement is true or* F *if it is false.*

T F 12. In deuterostomes, the mouth develops from or near the blastopore.

[redacted]

T F 16. The coelomic circulation of sea stars enables them to move across the sea floor using tube feet.

T F 17. The body cavity of the echinoderm functions as a simple circulatory and respiratory system.

T F 18. All chordates are deuterostomes.

T F 19. Echinoderms have openings called pharyngeal slits in their pharynx.

T F 20. Members of the subphyla Urochordata and Cephalochordata are invertebrate chordates.

T F 21. The endoskeleton of some chordates is completely internal.

[redacted]

• • • • • • • • • • • • • • •

Complete each statement by writing the correct term or phrase in the space provided.

23. In _____, the mouth not only forms later than the _____ but also forms on another part of the embryo.

24. Protostomes include coelomate animals, such as _____, _____, and _____.

25. Many echinoderms crawl across the seafloor by means of a(n) _____ _____ system.

[redacted]

27. In many echinoderms, respiration and waste removal are aided by _____ _____, which are small fingerlike projections that grow between the spines.

29. The water-vascular system of the echinoderm is a series of interconnected _____ and thousands of tiny hollow _____ _____ .

30. The water-vascular system helps an echinoderm crawl and is also important for _____ and _____ _____ .

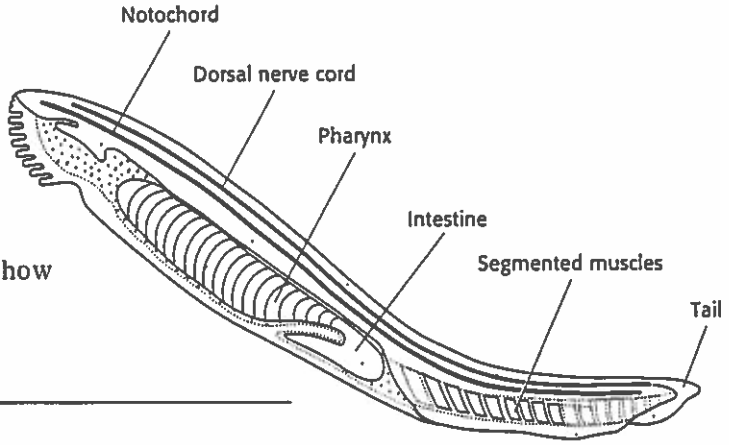
31. Echinoderms have no head or brain, but they do have a(n) _____ of _____ with branches that extend into each of the arms.

35. During the development of the chordate embryo, a stiff rod called a(n) _____ develops along the back.

36. The echindoderm's coelom functions as a(n) _____ and _____ system.

Read each question, and write your answer in the space provided.

Questions 38–40 refer to the figure at right.



38. Identify the animal shown at right.

_____

39. Based on the labeled structures, how would you know that this animal is a chordate?

_____

_____

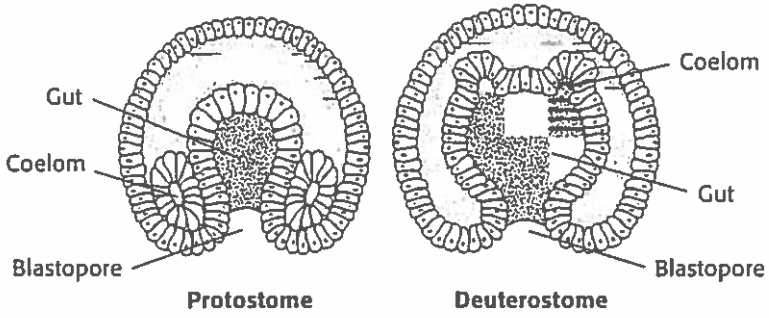
_____

[redacted]

41. Describe how a sea star is able to move using its water-vascular system.

[redacted]

Questions 43 and 44 refer to the figure below, which shows the gastrula stage of a protostome embryo and a deuterostome embryo.



43. Compare the location of the gut in these two embryos.

44. Compare and contrast the formation of the coelom in these two embryos.