Bio-G10-Q3W4-Echinodermata and invertebrate chordata- Test

Multiple Choice

Identify the choice that best completes the statement or answers the question.

	a. Notochord	c.	Postanal tail			
	b. Gill slits	d.	All of the above			
 2.	Which of the following structures allows water into and out of the water vascular system?					
	a. Madreporite	c.	Pedicellariae			
	b. Ampulla	d.	Anus			
 3.	3. What are the structures used by echinoderms to pry open the shells of bivalves called?					
	a. Tube feet	c.	Pedicellariae			
	b. Ampullas	d.	Rays			
 4. Which of the following echinoderms has a sessile lifestyle?						
	a. Sea cucumber	c.	Sea urchin			
	b. Sea lily	d.	Brittle star			
 5.	. Which of the following structures is the progenitor of the central nervous system in chordate					
	a. Dorsal hollow nerve cord	c.	Muscle blocks			
	b. Notochord	d.	None of the above			
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1. Which of the following characteristics can be found in the development of invertebrate chordates?



Figure 29-5

 6.	What structure shown in the adult sea squirt in Figure 29-5 indicates it's a chordate?				
	a. anus	c.	gill slits		
	b. ciliated grooves	d.	heart		
 7.	Where is the dorsal nerve cord in Figure 29-5?				
	a. along the heart and circulatory system	c.	surrounding the pharynx		
	b. it disappeared after the larval stage	d.	within the tunic		
 8. What is the tunic produced by adult sea squirts made of?					
	a. Calcium carbonate	c.	Cellulose		
	b. Chitin	d.	None of the above		
 9. Tunicates and lancelets are filter feeders. In order to trap food, they secrete mucus from					
	a. pharynx.	c.	gill slits.		
	b. ciliated groove.	d.	None of the above		
 10.	What are the long, tapering arms of echinoderms called?				
	a. Ampullas	c.	Tube feet		
	b. Pedicellariae	d.	Rays		
 11.	1. Which structure in Figure 29-4 is a characteristic only chordates have?				



Figure 29-4

- a. A
- С b.

c. D

d. B

- 12. Which of the following nutritional lifestyles are found in populations of echinoderms? a. Carnivorous c. Decomposers

 - b. Herbivorous

- d. All of the above



Figure 29-3

 13.	The notochord shown in Figure 29-3 is surrounded on two sides by what?				
	a. ectoderm	c.	mesoderm		
	b. exoderm	d.	endoderm		
 14.	Identify the notochord in Figure 29-3.				
	a. A	c.	С		
	b. B	d.	D		
 15.	5. What is the endoskeleton of echinoderms composed of?				
	a. Cellulose				
	b. Chitin				
	c. Echinoderms do not have endoskeletons.				
	d. Calcium carbonate				
 16.	The type of symmetry found in all adult echinoderms is				
	a. horizontal	c.	radial		
	b. bilateral	d.	regional		
 17.	A seastar can hold tightly to the surface it is touching because of the				
	a. sieve in the madreporite	c.	suction in the tube feet		
	b. endoskeleton	d.	eyespots		
 18.	An animal that retains its chordate features throughout life is the				
	a. seastar	c.	lancelet		
	b. sea squirt	d.	sand dollar		

True/False

Indicate whether the statement is true or false.

- _____ 19. The fact that echinoderms have deuterostome development is strong evidence that they are most closely related to chordates.
- _____ 20. If a sea urchin population underwent a population explosion, you might expect to see a rapid decline in the amount of algal life in the area.
- _____ 21. Most echinoderms have highly developed sense organs.
- _____ 22. Sea stars and brittle stars both eat suspended organic particles.

Matching

Match each item with the correct statement below.

a. brittle star

- d. sea lily
- b. sea star e. sea cucumber
- c. sand dollar
- _____ 23. Has tiny, calcified plates embedded in fleshy skin
- _____ 24. Has feathery, branching rays made up of tiny, calcified plates
- _____ 25. Has a flexible endoskeleton divided into rather long, tapering rays
- _____ 26. Has a flattened, immovable endoskeleton made up of fused plates
- _____ 27. Has thin, flexible rays made up of small, overlapping, calcified plates
