

Choose the most correct answer:

1. The single-celled Eucarya protozoan can be more complex than bacterial cells because of the presence of \_\_\_\_\_; intracellular structures often as complex as an individual cell in a multi-cellular Eucarya organism.
  - a. lipid bilayers
  - b. flagella
  - c. light-emitting diodes
  - d. organelles**
2. The ancestral Eukaryotic cell arose by \_\_\_\_\_.
  - a. spontaneous generation
  - b. extinction of prokaryotic cells
  - c. binary fission
  - d. endosymbiosis**
3. What type of cells do the Bacteria and the “Archea” have?
  - a. eukaryotic cells
  - b. prokaryotic cells**
  - c. epitheliomuscular cells
  - d. nervous cells
4. Linnean \_\_\_\_\_ are slowly being abandoned by scientists because they are not comparable and sometimes do not reflect evolutionary history.
  - a. theories
  - b. names
  - c. binomial nomenclature
  - d. classification ranks**
5. The sister taxon to Animalia is the \_\_\_\_\_.
  - a. Porifera
  - b. Cnidaria
  - c. Choanoflagellates**
  - d. “Archea”
6. One advantage of being multicellular is the possibility for \_\_\_\_\_.
  - a. division of labor**
  - b. fighting disease
  - c. decreased gas exchange
  - d. genetic exchange
7. In the Porifera, water is moved through the bodies by the beating flagella of the \_\_\_\_\_.
  - a. arachaeocytes
  - b. choanocytes**
  - c. ameboid cells
  - d. porocytes
8. The skeletons of the Hexactinellida are made of six-rayed, silicon \_\_\_\_\_.
  - a. exoderms
  - b. asconoid spikes
  - c. long bones
  - d. spicules**
9. \_\_\_\_\_ have eight longitudinal rows of ciliated plates on their surface that help propel the animal.
  - a. Scyphozoans
  - b. Cnidarians
  - c. Ctenophorans**
  - d. Anthozoans
10. What tissue layer was added when tissue evolved from diploblastic to triploblastic?
  - a. ectoderm
  - b. mesoderm**
  - c. endoderm
  - d. gastrodermis

11. \_\_\_\_\_ body type is the most efficient and makes large body size possible.
  - a. Giganoid
  - b. Asconoid
  - c. Syconoid
  - d. Leuconoid**
  
12. The Cnidaria have \_\_\_\_\_, which are pressurized capsules in the cnidocytes that fire a microscopic dart.
  - a. blastopores
  - b. radiatecytes
  - c. zooids
  - d. nematocysts**
  
13. \_\_\_\_\_ is when a moon jelly polyp buds off a new juvenile medusa (known as an ephyra).
  - a. Planulation
  - b. Strobilation**
  - c. Sexual reproduction
  - d. Deuterostomation
  
14. Both \_\_\_\_\_ and three tissue layers appear for the first time in bilaterally symmetrical animals.
  - a. cephalization**
  - b. multicellular organs
  - c. the blastopore
  - d. light sensing cells
  
15. How is the absence of the medusa stage in the Anthozoa explained by the molecular phylogeny in Figure 7.1, which is contrary to the classical evolutionary tree based on morphology?
  - a. A critical developmental gene is suppressed
  - b. Anthozoa are forgetful creatures and often misplace life stages
  - c. common ancestor of Anthozoa lost this cnidarian life stage
  - d. medusa stage evolved in the common ancestor of Scyphozoa, Hydrozoa, and Cubozoa**
  
16. What is the most common cellular division in the body and is responsible for normal growth.
  - a. meiosis
  - b. replication
  - c. mitosis**
  - d. chromosomal division
  
17. Some of the evidence for endosymbiosis, includes the separate DNA molecules in \_\_\_\_\_.
  - a. vacuoles
  - b. flagellum
  - c. mitochondria**
  - d. endoplasmic reticulum
  
18. The intermediate host of Trematoda (and Digenea) parasites is usually a \_\_\_\_\_.
  - a. goat
  - b. cat's intestine
  - c. human
  - d. snail**
  
19. What is an evolutionary adaptation shared by the Trematoda, Monogenea, & Cestoda?
  - a. formation of a shell
  - b. a clitellum
  - c. segmentation
  - d. parasitism**
  
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Ooops... question 20 was supposed to be different.

20. Name the free-swimming and free-living stage of the Chinese Liver Fluke after it emerges from the snail host.

- a. **Cercaria**
- b. Miracidium
- c. Sporocyst
- d. Redia