***Animal Diversity, 8e* (Hickman)**

**Chapter 6 Sponges: Phylum Porifera**

1) Which statement about adult sponges is false?

A) Their bodies are aggregations of one cell type.

B) They do not have a mouth.

C) Their bodies are usually asymmetrical.

D) Their apparently simple structure is deceptive.

A

2) The order in which a drop of ink would pass by the structures in an ascon sponge is

A) spongocoel-ostia-osculum.

B) osculum-spongocoel-ostia.

C) osculum-ostia-spongocoel.

D) ostia-spongocoel-osculum.

E) ostia-osculum-spongocoel.

D

3) The simplest of canal systems is found in the

A) asconoids.

B) leuconoids.

C) syconoids.

A

4) The extracellular matrix found in sponges is

A) spongin.

B) collagen.

C) pinacoderm.

D) mesohyl or mesenchyme.

D

5) Calcareous or siliceous elements of the sponge body wall provide support.  These elements are called

A) amoebocytes.

B) pinacocytes.

C) choanocytes.

D) spicules.

E) spongin.

D

6) The outer thin, flat, epithelial-like cells that cover the outside and some inside surfaces of sponges, are

A) amoebocytes.

B) pinacocytes.

C) choanocytes.

D) spicules.

E) spongin.

B

7) The modified cells of sponges that form circular bands and provide just a little constriction to control water flow are

A) amoebocytes.

B) choanocytes.

C) spicules.

D) myocytes.

D

8) Cells that move about in the mesohyl, digest particles, and may specialize for other functions are the

A) archaeocytes.

B) pinacocytes.

C) choanocytes.

D) spongocytes.

E) lophocytes.

A

9) A sponge feeds by

A) using a net and a current that sweeps food particles through it.

B) squeezing the spongocoel cavity to suck debris in and out through the osculum.

C) beating the flagella of collar cells to form a current; food is absorbed by collar cells.

D) beating the flagella of collar cells to form a current from osculum to pores; food is engulfed by amoebocytes in the central cavity of the sponge.

C

10) Cells responsible for water flow and capture of some particles are the

A) myocytes.

B) archaeocytes.

C) choanocytes.

D) pinacocytes.

C

11) Which is NOT a trait of sponges?

A) They are sessile filter feeders

B) Their body wall has two incipient "cell layers"

C) Their flagellated collar cells move water

D) Water enters through the osculum

E) Amoeboid cells digest food and make skeletal fibers and gametes

D

12) If a sponge is fragmented and cells are dissociated from one another, the cells will

A) reproduce sexually.

B) die from being separated.

C) form spicules in the pattern of the cloth.

D) reorganize their structure and function, and clumps of isolated cells will form a new sponge.

D

13) Which of the following is NOT found in at least some sponges?

A) Spicules of calcium carbonate

B) Spicules of silica

C) Spicules of fibrous protein

D) Spongin, a fibrous protein

C

14) The free-swimming larva of most sponges is a

A) bud.

B) gemmule.

C) apopyle.

D) parenchymula.

E) plasmodium.

D

15) Reproduction in at least some sponges is

A) asexual by budding.

B) asexual by gemmules.

C) sexual with both male and female sex cells in one individual.

D) asexual by fragmentation.

E) All of the choices are correct

E

16) The minute, needle-like structures that act as a skeletal support system in sponges are called \_\_\_\_\_\_\_\_.

spicules

17) The tough protein fibers sometimes found in sponge skeletons are of a substance called \_\_\_\_\_\_\_\_.

spongin

18) The water *outlet* in sponges is known as a/an \_\_\_\_\_\_\_\_.

osculum

19) The flagellated cells embedded in the mesohyl of a sponge are called \_\_\_\_\_\_\_\_.

choanocytes

20) Thin, epithelial-type cells covering the outer surface of sponges are the \_\_\_\_\_\_\_\_.

piancocytes

21) About 80% of particulate organic carbon in the marine environment is in the form of the smallest particles that sponges can consume, and phagocytosis of these particles is carried out by the \_\_\_\_\_\_\_\_.

choanocytes

22) Internal buds of freshwater sponges that can withstand adverse conditions are \_\_\_\_\_\_\_\_.

gemmules