**Sponges** (p. 618 – 621)

**I. The Simplest Animals**

**1. Sponges are placed in the phylum \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** *(Not in the book.)*

**2. Sponges are animals.**

Circle One : True False

**3. Describe the body of a sponge.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Sponge cells are not organized into tissues and organs.**

Circle One : True False

**5. Match the anatomical terms of a sponge with the correct definitions.**

1. \_\_\_\_\_\_\_\_ Mesophyl A. Gel-like substance found in the interior of sponges.

2. \_\_\_\_\_\_\_\_ Ostia B. “Pore Cells”; Tiny openings through which water enters.

3. \_\_\_\_\_\_\_\_ Osculum C. Specialized cells that pick up nutrients from collar cells.

4. \_\_\_\_\_\_\_\_ Choanocytes D. Large opening through which water exits sponges.

5. \_\_\_\_\_\_\_\_ Amoebocytes E. “Collar Cells”; Flagellated cells - move water in sponges.

**6. Define the term sessile.**

Sessile –

**7. What does the movement of water through a sponge provide?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8. Where does digestion take place in sponges?**

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**9. Circle the letter of each sentence that is true about sponges.** *(Not in the book.)*

a. Sponges are filter feeders.

b. Sponges reproduce only asexually.

c. Sponges rely on water movement to carry out body functions.

d. Sponges do not have a nervous system.

**II. Sponge Diversity**

**1. What do folds in a sponge’s body provide?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2. A sponge has a skeleton.**

Circle One : True False

**3. Define the term spicule.**

Spicule –

**4. Define the term spongin.**

Spongin –

**5. List the three different groups of sponges.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - spicules composed of calcium carbonate

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - spicules made of silica

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - spicules made of silica and spongin

**III. Reproduction**

**1. Circle the letter of each type of reproduction that can occur with sponges.**

a. Regeneration (asexual)

b. Budding (asexual)

c. Gemmule formation (asexual)

d. Sexual Reproduction

**2. New sponges can form from fragments of a single sponge.**

Circle One : True False

**3. Define the term gemmule.**

Gemmule –

**4. When do gemmules typically form?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5. Most sponges are hermaphrodites (capable of producing sperm and eggs).**

Circle One : True False