**Studying Life**

**I. Introduction**

**1. What is biology?**

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**II. Characteristics Of Living Things**

**1. What is a cell?**

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**2. Circle the letter of each sentence that is true about cells.**

a. A cell is the smallest unit of an organism that can be considered alive.

b. A multicellular organism may contain trillions of cells.

c. A living thing that consists of a single cell is a multicellular organism.

d. Organisms are made up of cells.

**3. Match the year with the correct event contributing to the cell theory.**

1. \_\_\_\_\_\_\_\_ - mid-1600’s A. Robert Brown (“dark structure” = nucleus)

2. \_\_\_\_\_\_\_\_ - 1665 B. Rudolf Virchow (cells come from pre-existing cells)

3. \_\_\_\_\_\_\_\_ - 1833 C. Matthias Schleiden (all plants made up of cells)

4. \_\_\_\_\_\_\_\_ - 1838 D. Anton van Leeuwenhoek (saw “living things” with microscope)

5. \_\_\_\_\_\_\_\_ - 1839 E. Robert Hooke (examined cork; “tiny chambers” = cells)

6. \_\_\_\_\_\_\_\_ - 1855 F. Theodor Schwann (all animals made up of cells)

**4. What are two types of asexual reproduction?**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5. Living things are based on a universal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**6. Circle the letter of each sentence that is true about living things.**

a. The life cycle of many organisms involves development.

b. For bacteria, growth is mostly a simple increase in size.

c. Each type of organism has a distinctive life cycle.

d. Cells may change in number but never differentiate.

**7. Why does an organism need energy and a constant supply of materials?**

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**8. What is metabolism?**

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**9. All organisms respond to the environment in exactly the same ways.**

Circle One : True False

**10. What is homeostasis?**

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**11. A group of organisms that changes over time is said to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**III. Branches Of Biology**

**1. Match the different kinds of biologists with the focus of their study.**

1. \_\_\_\_\_\_\_\_ - Botanist A. Inherited or environmentally-caused abnormalities

2. \_\_\_\_\_\_\_\_ - Biochemist B. Internal functions of living organisms

3. \_\_\_\_\_\_\_\_ - Conservationist C. Plant growth and responses

4. \_\_\_\_\_\_\_\_ - Geneticist D. Ancient organisms and their remains

5. \_\_\_\_\_\_\_\_ - Marine Biologist E. Human effects on species populations

6. \_\_\_\_\_\_\_\_ - Microbiologist F. Animal growth and development

7. \_\_\_\_\_\_\_\_ - Oncologist G. Aquatic organisms and their environment

8. \_\_\_\_\_\_\_\_ - Paleontologist H. Infectious diseases and causes

9. \_\_\_\_\_\_\_\_ - Physiologist I. Physical and chemical effects on life processes

10. \_\_\_\_\_\_\_\_ - Zoologist J. Cancer-related issues and treatment

**2. Label each of the illustrations below according to the level of study represented.**

**3. What kinds of information can biology provide about matters affecting human society?**

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