**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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