

**GRADE 12 BIOLOGY
QUIZ
UNIT X – INTRODUCTION TO SCIENCE**

Name: _____

Date: _____

You may (always) use any Study Notes you have (ie: cheat sheet)

Each Individual Question is worth two marks.

MULTIPLE CHOICE. Circle the letter of the **best** response.

1. To ensure that a scientific work is free of bias and meets standards set by the scientific community, a research group's work is peer reviewed by:

- A. anonymous scientific experts.
- B. the general public.
- C. the researchers' friends.
- D. lawmakers.

3. Which of the following statements about a scientific theory is NOT true?

- A. It has the same meaning in science as it does in daily life.
- B. It enables scientists to make accurate predictions about new situations.
- C. Scientific theories tie many hypotheses together.
- D. It is based on a large body of evidence.

4. A bird-watcher sees an unusual bird at a feeder. He takes careful notes on the bird's color, shape, and other physical features and then goes to a reference book to see if he can identify the species. What aspect of scientific thinking is most apparent in this situation?

- A. observation
- B. inference
- C. hypothesis formation
- D. controlled experimentation

5. Unlike sexual reproduction, **asexual** reproduction involves:

- A. two cells. C. one parent.
B. two parents. D. one nonliving thing.

6. Once a month, a pet owner recorded the mass of her puppy in a table. When the puppy was 3 months old, she started to feed it a “special puppy food” she saw advertised on TV. *(if you have not done much math recently you may not like this question but give it a try anyway)*

Change in a Puppy's Mass Over Time		
Age (months)	Mass at Start of Month (kg)	Change in Mass per Month (kg)
2	5	—
3	8	+3
4	13	+5

7. According to the table above, which statement is true?

- A. The puppy's mass increased at the same rate for each month shown.
B. The puppy's mass was less than 5 kg at the start of the new diet.
C. The puppy gained 5 kg between age 3 and 4 months.
D. The puppy had gained 13 kg as a result of the new diet.

8. Using the table above, all of the following statements about the pet owner's study are true EXCEPT

- A. The owner used the metric system.
B. The owner recorded data.
C. The owner could graph the data.
D. The owner conducted a controlled experiment.

Open-Ended Response (Answer with a proper paragraph)

9. Explain how a controlled experiment works.