

Chapter 3 Quiz

Part A: Modified True/False

Indicate whether each statement is true or false. If false, change the underlined word or phrase to make the statement true.

- ____ 1. Mitosis is the process used by plants and animals to produce sex cells.

- ____ 2. Body cells are also known as gametes. _____
- ____ 3. Human body cells have 23 pairs of chromosomes. _____
- ____ 4. The process of inserting a gene from one species into a different species is known as grafting. _____
- ____ 5. An organism having both male and female sex organs is called a hermaphrodite.

Part B: Completion

Complete the following sentences.

6. If a cell with eight chromosomes undergoes meiosis, the resulting cell(s) will have _____ chromosomes.
7. The process by which a sperm nucleus combines with an egg nucleus is called _____.
8. Two people with brown eyes have a baby with blue eyes. This is possible because the allele causing blue eyes is _____ to the allele for brown eyes.
9. The embryos of reptiles develop outside of the mother's body in a structure known as a(n) _____.

Part C: Matching

Match each term to its correct description.

- | | |
|---|------------|
| ____ 10. the male gametes of a plant | (a) pistil |
| ____ 11. the female gametes of a plant | (b) stamen |
| ____ 12. the female reproductive structure of a plant | (c) pollen |
| ____ 13. the male reproductive structure of a plant | (d) eggs |

Name: _____

Date: _____

Chapter 3 Quiz (continued)

Part D: Multiple Choice

Circle the letter beside the answer that best completes the statement or answers the question.

- 14. Meiosis is used for
 - (a) reproduction
 - (b) growth
 - (c) repair
 - (d) all of the above
- 15. A fertilized egg is also known as
 - (a) a gamete
 - (b) an embryo
 - (c) a seed
 - (d) a zygote
- 16. The duck-billed platypus is an unusual mammal because it
 - (a) produces milk
 - (b) lays eggs
 - (c) has hair
 - (d) all of the above
- 17. Pollen is transferred from one flower to the next by
 - (a) swimming
 - (b) insects
 - (c) wind
 - (d) both (b) and (c)
- 18. Canola has developed into an important crop because of
 - (a) recombinant DNA technology
 - (b) selective breeding
 - (c) grafting
 - (d) both (a) and (b)

Part E: Short Answer

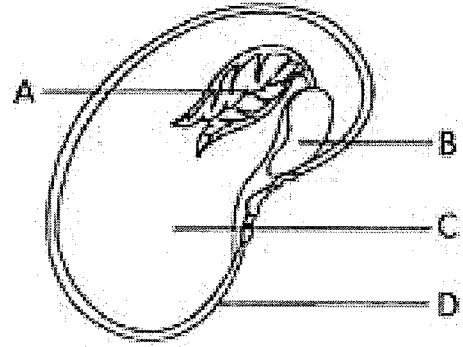
Use sentences to answer the following questions.

19. Explain why some fish produce millions of eggs. Provide at least three reasons.

20. Imagine that you saw a greenhouse operator cutting a shrub and putting the cut branches in water. What type of reproductive technology is she using? Why did she not plant seeds instead?

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21. Label parts A, B, C, D of the bean seed.
22. Which part contains the highest level of starch?
23. Draw a diagram to describe homologous chromosomes and chromatids.



24. Using your knowledge of gametes and chromosome numbers and types, explain why sexual reproduction can produce a variety of traits in individuals of the same species.
25. List two advantages and two disadvantages of External Fertilization.

Advantages:

Disadvantages:

26. List two advantages and two disadvantages of Internal Fertilization.

Advantages

Disadvantages:

Summary of Tomato Plant Life Cycle

Label the diagram and briefly describe what is happening at each stage of the cycle.

