

Chapter 2 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.

P 1. Multicellular organisms grow by increasing the size of their cells. number

F 2. Instructions for all cell activities are coded for by proteins. DNA

T 3. The stage of the cell cycle in which a cell is not actively dividing is known as interphase.

F 4. A change in a cell's genes is known as a cancer. mutation

T 5. A cancer tumour that does not interfere with the cells around it is known as a benign tumour.

OMIT

Part B: Completion

Complete the following sentences.

6. If one cell undergoes division and continues to do so for five divisions, there will be 32 cells.

7. The part of the cell that contains all of the materials needed to make ribosomes is known as the nucleolus.

8. A chemical substance that can cause cancer is known as a carcinogen.

omit 9. A cancerous tumour may spread to other parts of the body by the process of metastasis.

1
2
4
8
16
32

Part C: Matching

Match each of these words to their correct description.

C 10. chromosomes (a) provide energy for the cell

A 11. mitochondria (b) location of most cell activity including absorbing, moving, and processing materials

D 12. ribosomes (c) contain genes

B 13. cytoplasm (d) produce proteins

Chapter 2 Quiz (continued)

Part D: Multiple Choice

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

14. Cell division is used for

- (a) reproduction
(b) growth
(c) repair
(d) all of the above

15. Mitosis proceeds through a series of stages. These, in order, are

- (a) interphase, metaphase, prophase, telophase
(b) prophase, metaphase, anaphase, telophase
(c) prophase, anaphase, metaphase, telophase
(d) metaphase, telekinesis, prophase, cytokinesis

16. The stage of mitosis during which the cytoplasm is divided into two parts is called

- (a) cytokinesis
(b) telophase
(c) interphase
(d) binary fission

17. Some animals are able to replace lost limbs or other body parts. This ability is called

- (a) fragmentation
(b) vegetative reproduction
(c) budding
(d) regeneration (check out page 59)

18. Which of the following statements about DNA is **not** true?

- (a) The DNA molecule can make a copy of itself.
(b) The DNA molecule looks like a twisted ladder (double helix).
(c) In DNA, adenine is always paired with guanine.
(d) There are only four nitrogenous bases available to form DNA.

Part E: Short Answer

Use sentences to answer the following questions.

19. At some time in your life, you cut yourself on a piece of glass or some other sharp object. In one or two sentences, explain why that cut is no longer bleeding, and the role of cell division in the process of healing.

Over time, your skin cells regrow to close up / cover up the cut and prevent bleeding once the scab (dried blood) falls off.

20. Explain what fragmentation is. Name one organism that can reproduce via fragmentation with regeneration.

Sea stars and flatworms! When a small part of the animal breaks off of a sea star, the sea star can "regenerate" and regrow a body part.