

Study Guide- Unit 4: Cell Growth and Division (Chapter 10)

Answer the following questions using your lecture notes, textbook, and other study charts. Remember, this is a study guide and the test is NOT limited to just the information here.

A) In your textbook, turn to pages 300-302 and answer the selected question by putting the answers in the space below.

1.	10		
2.	11		35
3.	21		
8.	27.		
9	29	34.	36.

B). Answer the following questions using your textbook and lecture notes.

- Define:
 - Sexual Reproduction _____
 - Asexual Reproduction _____
- Identify 3 reasons why cell growth is limited.
- What are chromosomes? What is their role in cell division?
- List and state the main event(s) occurring in the phases of the **CELL CYCLE**.

Interphase (3 phases):

Events:

→ _____
 → _____
 → _____

After interphase:

→ _____
 → _____

- In the space below, draw an animal cell in each phase of mitosis and cytokinesis. Assume the animal cell has 4 chromosomes. Include, where appropriate, centrioles, spindle fibers, nuclear membrane, and nucleolus.

interphase	prophase	metaphase	anaphase	telophase	cytokinesis

6. Name the 2 types of proteins that regulate the cell cycle.

7. What are mistakes in DNA called?

8. Define TUMOR: _____

9. What is the difference between a benign tumor and a malignant tumor?

10. Describe what cancer is, how it is treated, and how it is prevented.

11. What causes the regulation of cell growth to stop?

12. What happens during differentiations?

13. What are stem cells?

14. Compare embryonic stem cells and adult stems cells. In other words, how are they similar and how are they different?

15. Define the following terms:

Totipotent: _____

Pluripotent: _____

Multipotent: _____

16. What are some benefits to stem cells?

17. What are some ethical issues with stem cells?

Ways to Study/Review

1. Review **all lecture notes** and readings.
2. Answer the questions at the end of EACH section AND chapter.
3. Study with a friend (not just socialize).
4. Look over old study guides.
5. Flashcards
6. Putting lecture notes into your own words
7. Make yourself a test and take it. Also, have a friend make a test too and exchange tests.
8. Come into class with questions!
9. Review a little each day.... Do not cram the night before!



My child has studied this study guide for at least 20 minutes (2 bonus points)

(Parent/guardian signature)