**Science 9 – Section 5.5 Cell Division REVIEW – TEST TUESDAY, APRIL 3, 2018**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: March 27, 2018**

1. Using your notes/textbook complete each of the following.
2. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a series of events or stages that cells go through as they grow and divide.
3. Indicate the proper order of the phases of the cell cycle starting with G1 (growth phase):
4. G1 (growth phase), S phases, G2 (second growth phase), and cell division
5. G1 (growth phase), G2 (second growth phase), cell division, and the S phase
6. During the cell cycle, a cell \_\_\_\_\_\_\_\_\_\_\_\_, prepares for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and divides to form \_\_\_\_\_\_\_\_\_\_ daughter cells.
7. This second stage of cell division, itis described as the division of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Interphase is the period of growth that occurs between cell divisions and include the following; \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_ phases.
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are made of the following components: DNA and proteins.
10. During which phase of mitosis are the chromosomes visible (shorten and thicken)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. TRUE OR FALSE: During telophase the nuclear membrane begins to fade or dissolve.
12. During this phase of mitosis, the chromosome (or sister chromatids) separate and move to the opposite ends or poles of the cell. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. Cytokinesis occurs during this phase of mitosis. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. When the cell membrane during cytokinesis is drawn or pinched inward causing the cytoplasm to pinch in half. The resulting indentation is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
15. Cytokinesis in plant cells, forms a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ along the middle, creating two new cells.
16. A normal cell of an elephant has 56 chromosomes. After the cell has undergone mitosis, how many chromosomes would you expect to find in each cell? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
17. TRUE OR FALSE: Missing or extra chromosomes after the process of mitosis may cause a cell to form a mutation or for a cell to not function properly and die.
18. Changes in genetic codes are called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
19. Cell division consists of two major stages which include \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
20. During the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the chromosomes are replicated and DNA synthesis takes place.
21. The first stage of cell division, called mitosis, is described as the division of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
22. Each chromosome consists of two identical sister \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
23. During this phase of mitosis, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the double stranded chromosomes line up across the center or equatorial plate of the cell.
24. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is described as the second phase of cell division in which the cytoplasm and organelles separate into two equal parts to form two identical daughter cells.
25. Mitosis – Indicate in which phase of mitosis each of the following occur in.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nuclear membrane begins to fade or dissolve.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cytokinesis begins and cytoplasm and organelles will separate into two equal parts.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Each chromosome (or sister chromatids) separate and move to opposite ends (poles) of the cell.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Centrioles begin to separate and move to opposite sides or ends of the cell.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The double stranded chromosomes line up across the center of the cell.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chromosomes reach the opposite ends of the cell (or poles) and begins to form around each set.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Individual chromosomes shorten, thicken, and become visible.

**REVIEW MITOSIS PHASES, DIAGRAMS, AND LABELS FOR TEST**