

CHAPTER 9: Cell Division—Proliferation and Reproduction

I. Match the term to the description (write the letter) (10x4 =40)

A. Interphase B. Prophase C. Metaphase D. Anaphase E. Telophase

- E 1. Spindles disappear.
- E 2. New nuclear membrane forms around the daughter nuclei.
- B 3. The chromosomes become visible.
- C 4. The chromosomes are located at the equator of the cell.
- D 5. The cleavage furrow forms.
- D 6. The chromatids move towards the poles of the cell.
- A 7. DNA is replicated.
- A 8. The cell plate is completed.
- A 9. The organization phase. Cell prepares for next division.
- E 10. Daughter chromosomes are at the pole.

II. Answer the following questions.

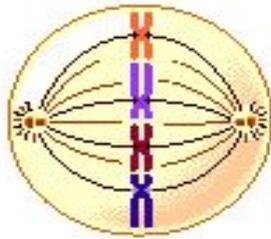
11. Cells that have only one of each homologous pair are said to be haploid, a condition that is represented by n. Cells that have two of each homologous pair are said to be diploid or 2n. For each of the following, is the cell haploid or diploid? Indicate by writing **n or 2n (10 pts)**

liver cell 2n gamete n egg cell 2n
 zygote 2n skin cell 2n sperm 2n
 stomach cell 2n sex cell n brain cell n
 lung cell 2n

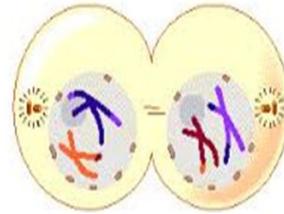
12. The muscle cells of a dog have 78 chromosomes. Fill in the correct chromosome number in the following cells. **(10 pts)**

a bone cell 46 sperm 23 haploid cell 23
diploid cell 23 zygote 46

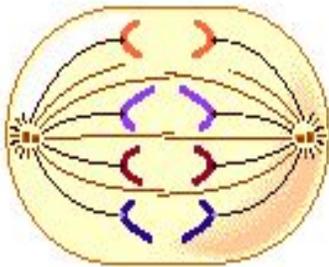
III. Identify the stage of mitosis in the following cells. (4X5=20)
Word choices: Prophase, Metaphase, Anaphase, Telophase



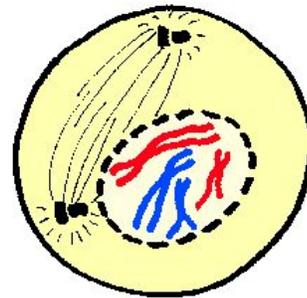
13. metaphase



14. prophase



15. telophase



16. anaphase

