

- **BIOMEDICAL SCIENCE 136**
- **PRACTICE QUIZ FOR FIRST LECTURE EXAM** (ANSWERS ON THE BACK)

TRUE OR FALSE

1. The organelle that produces ATP (cell fuel) inside of cells is the mitochondria.
2. Protein and DNA are both examples of nucleic acids.
3. During interphase, the DNA and protein in the cell nucleus is not condensed and exists in a form called chromatin.
4. A hormone is a chemical messenger released by one cell or tissue that regulates the function of another cell or tissue and is transported in the blood.
5. At the end of mitosis, four cells are produced each of which has the haploid number of chromosomes
6. The sugar in the sugar-phosphate backbone of DNA is a ribose sugar.

MULTIPLE CHOICE

7. Chromosomes line up along the equator of the cell during which of the following phases of mitosis?
 - A. prophase
 - B. metaphase
 - C. anaphase
 - D. telophase
 - E. cytokinesis
8. Transcription occurs in which of the following parts of a cell?
 - A. the rough endoplasmic reticulum
 - B. the mitochondria
 - C. the cell cytoplasm
 - D. the Golgi apparatus
 - E. the cell nucleus
9. Which of the following is not a primary tissue type in humans?
 - A. muscle tissue
 - B. exoskeletal tissue
 - C. nervous tissue
 - D. connective tissue
 - E. epithelial tissue
10. Which of the following types of cells does not have a membrane bound cell nucleus?
 - A. eukaryotic cell
 - B. animal cell
 - C. prokaryotic cell
 - D. A and B only
 - E. B and C only

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- B. animal cell
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11. Meiosis occurs in:

- A. somatic (body) cells
- B. developing sperm cells
- C. developing egg (ovum) cells
- D. both A and B
- E. both B and C

12. Which of the following are nitrogenous bases which can be found in DNA?

- A. thymine
- B. adenine
- C. cytosine
- D. A and B only
- E. A, B, and C

13. With regards to the complementary base pairing in a DNA double helix, which of the following is true?

- A. adenine binds to guanine
- B. adenine binds to thymine
- C. adenine binds to cytosine
- D. adenine binds to adenine
- E. adenine binds to uracil

SENTENCE COMPLETION

14. DNA in cells is found enclosed in the (A. smooth endoplasmic reticulum / B. Golgi apparatus / C. centrioles / D. cell nucleus / E. rough endoplasmic reticulum).

15. Chromosome duplication or DNA synthesis (A. does / B. does not) occur between Meiosis I and Meiosis II.

SHORT ANSWER

16. Briefly define the following term:

physiology =

17. List the four stages of **Meiosis I** as they occur in order.

1. _____
2. _____
3. _____
4. _____

ANSWERS

1. TRUE
2. FALSE
3. TRUE
4. TRUE
5. FALSE
6. FALSE
7. B
8. E
9. B
10. C
11. E
12. E
13. B
14. D
15. B

16. the study of the integrated functions of the vital systems of living organisms

17. prophase I
metaphase I
anaphase I
telophase I