

➤ **BIOMEDICAL SCIENCES 136**
➤ **PRACTICE QUIZ #1.1 FOR**
➤ **FIRST EXAM**
(ANSWERS ARE ON LAST PAGE)

TRUE - FALSE

1. Prokaryotic cells possess many organelles.
2. The rough endoplasmic reticulum is an organelle that produces proteins that will be secreted from a cell.
3. Translation occurs in the cell nucleus.
4. Crossing over normally occurs during prophase of mitosis.
5. At the end of meiosis, four haploid cells are produced.
6. Meiosis only occurs in the gonads.
7. Nucleic acids such as DNA are comprised of many amino acids bonded together into long chains.

MULTIPLE CHOICE

8. Which of the following refers to the division of the cytoplasm, separation of organelles and formation of new cell membrane to form two separate cells at the end of cell division?

- A. prophase
- B. cytokinesis
- C. telophase
- D. anaphase
- E. metaphase

9. During which of the following phases of the cell cycle is the cell NOT dividing?

- A. metaphase
- B. telophase
- C. anaphase
- D. prophase
- E. interphase

10. Transcription occurs in which of the following parts of a cell?

- A. cell nucleus
- B. Golgi apparatus
- C. cell cytoskeleton
- D. cell cytoplasm
- E. none of the above

11. A hormone could have which of following chemical structures?

- A. steroid
- B. protein
- C. amine
- D. fatty acid
- E. any of the above could be the chemical structure of a hormone

12. Which of the following is the type of tissue in humans that lines the inside and outside of organs?

- A. connective tissue
- B. epithelial tissue
- C. muscular tissue
- D. nervous tissue
- E. none of the above

13. DNA is duplicated and chromosomes are replicated during which of the following phases of the cell cycle?

- A. metaphase
- B. telophase
- C. anaphase
- D. prophase
- E. interphase

14. How many chromosomes are there in a diploid human cell?

- A. 92
- B. 56
- C. 46
- D. 23
- E. none of the above

15. How many chromosomes are there in a haploid human cell?

- A. 92
- B. 56
- C. 46
- D. 23
- E. none of the above

16. Which of the following is false regarding meiosis?

- A. meiosis produces diploid daughter cells
- B. meiosis occurs in the formation of sperm
- C. crossing over occurs during meiosis
- D. meiosis occurs in the testes
- E. meiosis occurs in the ovaries

SENTENCE COMPLETION

17. (A. A centromere / B. Chromatin) is a bundle of protein that holds the two halves of a duplicated chromosome together.

18. All bacterial cells are (A. prokaryotic / B. eukaryotic).

FILL-IN-THE-BLANK

19. _____ is the scientific name for a fertilized egg cell.

20. The enzyme that catalyzes the process of translation is called _____.

SHORT ANSWER

21. What is cell differentiation?

22. List two of the three basic tenet/concepts of the cell theory.

23. List 6 of the organ systems that comprise the human body.

24. At the most basic level, what is cancer?

25. Regarding cell division, what is nondisjunction?

12. B

13. E

14. C

15. D

16. A

17. A

18. A

19. ZYGOTE

20. RIBOSOME

21. During development, cells become different cell types by activating (“turning-on”) and inhibiting (“turning-off”) specific genes.

22. ANY **TWO** OF THE FOLLOWING:

1. All **living** things are made of cells.
2. Cells only arise from pre-existing cells by division. (spontaneous generation does not occur)
3. Cells are made of similar compounds with similar characteristics and biochemistry.

23. ANY **SIX** OF THE FOLLOWING:

1. CARDIOVASCULAR SYSTEM
2. DIGESTIVE SYSTEM
3. ENDOCRINE SYSTEM
4. IMMUNE SYSTEM
5. INTEGUMENTARY SYSTEM (SKIN)
6. LYMPHATIC SYSTEM
7. MUSCULAR SYSTEM
8. NERVOUS SYSTEM
9. REPRODUCTIVE SYSTEM
10. RESPIRATORY SYSTEM
11. SKELETAL SYSTEM
12. URINARY SYSTEM

24. Cancer is uncontrolled cell division/mitosis.

25. Nondisjunction is a failure of chromosomes to separate properly during cell division. This results

ANSWERS

1. FALSE

2. TRUE

3. FALSE

4. FALSE

5. TRUE

6. TRUE

7. FALSE

8. B

9. E

10. A

11. E

in daughter cells with extra or missing chromosomes.