Republic of the Philippines
DEPARTMENT OF EDUCATION
Region XI
Division of Panabo City
PANABO CITY NATIONAL HIGH SCHOOL
SENIOR HIGH SCHOOL: STEM
Gredu, Panabo City Davao del Norte

GENERAL BIOLOGY 1- FIRST QUARTER ASSESSMENT

I. Multiple Choice: Choose a letter that corresponds to your best answer.

1. Which level of organization is the basic unit of life?

a. Cell
b. Tissue
c. Organ
d. System

2. Which of the following is NOT a postulate of the cell theory?

a. All living things are composed of cells.
b. Cells are the basic unit of life
c. All cells undergo complete development.
d. All new cells arise from existing cells.

3. Who coined the term cell for the box-like structure he observed when viewing cork tissue?

a. Matthias Schleiden
b. Theodor Schwann
c. Rudolph Virchow
d. Robert Hooke

4. What do you call the distinct thread-like structures that contain genetic information?

a. Ribosome
b. Nuclei
c. Chromosomes
d. Mitochondria

5. Centrioles are organelles involved in:

a. Cell division.
b. Catabolism.
c. Photosynthesis.
d. Exocytosis.

6. Which of the following is NOT true of chloroplasts?

a. They synthesize sugar.
b. They contain pigments.
c. They are found in plants only.
d. They appear green because of the chlorophyll.
e. All of the above.
f. None of the above.

7. Which cell structure can be found in the nucleus?

a. Chloroplasts
b. Chromosomes
c. Mitochondria
d. Vacuoles

8. Which part of the cell is the site of protein synthesis?

a. Lysosome
b. Mitochondria
c. Nucleus
d. Ribosomes

9. Which organelle is a non membrane bound?

a. Vacuole
b. Lysosome
c. Ribosomes
d. Chloroplast

10. Which type of cell has these characteristics: contains DNA but no nucleus, contains flagella, ribosomes, cytoplasm, and a cell membrane?

a. Plant
b. Fungi
c. Animal
d. Bacteria

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11. Which of the following is NOT a characteristic of a prokaryotic cell?

a. Small and simple in structure
b. Has circular DNA.
c. Has nucleus
d. Has membrane-bound organelles

12. Which is NOT one of the four main types of body tissue?

a. Skin tissue
b. Nervous tissue
c. Epithelial tissue
d. Muscle tissue

13. It is made of tightly packed cells that are found on the surfaces of the body for protection, secretion and absorption.

a. Muscle tissue
b. Epithelial tissue
c. Nervous tissue
d. Connective tissue

14. They are the toughest body cells. They are bound together by calcium and phosphate.

a. Bone cells
b. Cartilage cells
c. Epithelial cells
d. Nerve cells

15. The muscle cells that are present only in the heart muscle and responsible for heart beats.

a. Cardiac muscle cells
b. Cartilage Cells
c. Epithelial Cells
d. Skeletal Cells

16. In what stage does the cell prepare for division?

a. G2 Stage of Interphase
b. G1 Stage of Interphase
c. Interphase
d. S Stage of Interphase

17. Collectively, what do you call the two attached sister chromatids?

a. Duplicated Chromosome.
b. Chromosome.
c. Sister chromatids
d. Homologous Chromosomes

18. In what phase of mitosis do sister chromatids of each chromosomes move away from each other to opposite poles?

a. Anaphase
b. Metaphase
c. Prophase
d. Telophase

19. In which of the following cytoplasmic division cells separate and ensure that each new cell contains all the metabolic machinery (organelles and cytoplasm) necessary for life?

a. Cytokinesis
b. Genes
c. Mitosis
d. Zygote

20. During this segment of the cell cycle, a cell doubles its cytoplasm and synthesizes DNA. It is estimated that a dividing cell spends about 90-95% of its time in this phase.

a. G1 Phase
b. G2 Phase
c. Interphase
d. S Phase

21. The process in which a sperm or pollen fertilizes an egg while both are outside the mother.

a. Cross Fertilization
b. External Fertilization
c. Internal Fertilization
d. Fertilization

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22. A condition which cells within the same person have a different genetic make-up. This condition can affect any type of cell including blood cells, egg, and sperm cells.

a. Mitosis
b. Mosaicism
c. Patau Syndrome
d. Trisomy

23. Plays an essential role in the control system by sensing defects during crucial processes such as DNA replication or chromosome segregation and inducing a cell cycle arrest in response until the defects repaired.

a. Cell Check points
b. Cell Monitor
c. G1 Phase
d. G2 Phase

24. What is the main difference between passive transport and active transport?

a. Passive transport needs energy, active transport does not.

b. Active transport needs energy, passive transport does not.

c. Only passive transport involves a protein.

d. Only active transport can transport ions across the cell membrane.

25. Which of the following is a type of passive transport?

a. osmosis
b. facilitated diffusion
c. simple diffusion
d. all of the above

II. TRUE or FALSE. Write T if the statement is TRUE and F if it is FALSE.

26. Epithelial tissues are characterized by closely joined cells with junctions.

27. Cartilage tissues are bound together by calcium and phosphate.

28. Blood is mineralized connective tissue made by osteoblasts which deposit collagen.

29. Movement of muscles is a response to signals coming from the nerve cells.

30. Adipose cells sends stimuli and transmit electrical signals throughout the animal body.

31. Meiosis is a nuclear division mechanism that maintains the chromosome number.

32. If a woman is 40 years old, the eggs in the ovaries are also 40 years old.

33. Mitosis separates the genetic material replicated during S phase.

34. A cell's life undergoes a series of recognizable intervals and events.

35. DNA is copied during interphase.

36. Cell division is composed of mitosis and meiosis. Both serve an essential role in our lives.

37. Chromosomal abnormalities usually happen as a result of an error in cell division.

38. Osmosis is the diffusion of small molecules.

39. Small changes in pH can result in enzyme denaturation and subsequent loss of catalytic activity.

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40. The loss of function of critical enzymes, particularly those of the central nervous system, can result in dysfunction sufficient to cause death.

III. Identification.

41. Is an enzyme composed only of protein (amino acid chains).

42. Is an enzyme that has a nonprotein part in addition to a protein part.

43. The protein part of a conjugated enzyme.

44. The nonprotein part of a conjugated enzyme.

45. The removal of one or more electrons from a substrate.

46. A group of enzymes that help digest fats in the gut.

47. The temperature at which an enzyme exhibits maximum activity.

48. The movement of macromolecules such as protein or polysaccharides into or out of the cell.

49. Transport proteins in the membrane that help move molecules along the concentration gradient without any additional energy input by the cell.

50. The materials that are exported out of the cell via secretory vesicles.

51. The process by which materials move into the cell.

52. The cell that engulfs drops of fluid by pinching in and forming vesicles that are smaller than phagosomes formed.

53. The movement of a solvent such as water through a semi-permeable membrane from areas of high concentration to areas of low concentration of the same solvent.

54. The tendency of molecules or materials to move from areas of high concentrations into the areas the same molecules are in a lower concentration.

55. They are proteins that help chemical reactions occur at faster rate by lowering the energy needed for the reaction.

IV. Essay (5pts.)

Explain the significance of meiosis and mitosis.

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