

BIOLOGY EXAM Sample Test – v.4**Part A: Multiple Choice Questions**

1. **The only major type of tissue specialized for movement is the _____ tissue.**
 - A. Nervous
 - B. Epithelial
 - C. Muscle
 - D. Connective
2. **The contraction of the myocardium of the heart atria and ventricles is called:**
 - A. Diastole
 - B. Heart beat
 - C. Systole
 - D. Cardiac output
3. **Striated muscle is also called:**
 - A. Cardiac muscle
 - B. Smooth muscle
 - C. Skeletal muscle
 - D. Involuntary muscle
4. **Which type of tissue builds glands?**
 - A. Connective
 - B. Nervous
 - C. Muscle
 - D. Epithelial
5. **Ligaments and tendons are formed of:**
 - A. Epithelial tissue
 - B. Muscle tissue
 - C. Cartilage
 - D. Connective tissue
6. **What type of tissue is found in the iris, hair follicle, and anus?**
 - A. Skeletal tissue
 - B. Cardiac muscle tissue
 - C. Smooth muscle tissue
 - D. All of the above
7. **The oxygen transport from the lungs to all cells of the organism is a function of the:**
 - A. Platelets
 - B. Red blood cells
 - C. White blood cells
 - D. Leucocytes
8. **Which muscle tissue is multinucleated and bears striations?**
 - A. Skeletal muscle.
 - B. Smooth muscle.
 - C. Multiunit smooth muscle.
 - D. Cardiac muscle.
9. **The heart has _____ chambers.**
 - A. 2
 - B. 4
 - C. 6
 - D. 3
10. **The longest bone in the body is the:**
 - A. Spine
 - B. Femur
 - C. Humerus
 - D. Ulna
11. **Homeostasis in the human body is a condition of:**
 - A. Constant temperature
 - B. Constant concentration of the salts dissolved in the blood
 - C. Dynamic equilibrium
 - D. Dynamic gas exchange
12. **The blood serum:**
 - A. Contains white blood cells
 - B. Does not contain fibrinogen
 - C. Contains erythrocytes
 - D. Does not contain water
13. **Which is the first digestive juice secreted in the alimentary canal?**
 - A. Hydrochloric acid
 - B. Saliva
 - C. Pancreatic digestive juice
 - D. Bile
14. **The membrane on the surface of a lung is called the:**
 - A. Viscera
 - B. Pleura
 - C. Pericardium
 - D. Periosteum

- 15. Anterior and posterior lobes are found in:**
- Thyroid gland
 - Parathyroid glands
 - Pituitary gland
 - Adrenal glands
- 16. This vessel carries de-oxygenated blood from the heart to the lungs.**
- Aorta
 - Main Pulmonary Artery
 - Upper Vena Cava
 - Portal vein
- 17. Fluid part of blood after removal of corpuscles is:**
- Plasma
 - Lymph
 - Water
 - Vaccine
- 18. A type of nucleated blood cells are the:**
- Red blood cells
 - Hepatocytes
 - Platelets
 - Monocytes
- 19. Physical and chemical changes or reactions that occur within the body are collectively known as:**
- Metabolism
 - Physiology
 - Assimilation
 - Excretion
- 20. In terms of biochemistry, what type of process is the breakdown of glucose to H_2O and CO_2 ?**
- Anabolic
 - Autotrophic
 - Catabolic
 - Aerobic
- 21. DNA transcription results in:**
- RNA molecule
 - 2 DNA molecules that each contains a strand of the original one
 - 1 new DNA molecule and 1 RNA molecule
 - Polypeptide molecule
- 22. A homozygous diploid organism has two _____ of a gene.**
- identical alleles
 - maternal molecules
 - identical codons
 - different alleles
- 23. When a dominant allele is present the offspring will show _____ characteristics.**
- Recessive
 - Dominant
 - Homozygous
 - Heterozygous
- 24. In _____, centromeres part and one set of chromosomes is pulled to each end of the cell.**
- Prophase
 - Metaphase
 - Anaphase
 - Telophase
- 25. The endoplasmic reticulum is best described as a:**
- Formless liquid
 - Cellular inclusion
 - Network of interconnected membranes
 - Membranous sac
- 26. Organelles called _____ provide energy from the products of digestion.**
- Endoplasmic reticulum
 - Mitochondria
 - Lysosomes
 - Golgi complex
- 27. The fundamental units of life are:**
- Genes
 - Alleles
 - Chromosomes
 - Cells
- 28. Which substance breaks down the bonds between amino acids?**
- Amylase
 - Pepsin
 - Lipase
 - All of the above

29. Which of the following nitrogen bases is a component of ATP:

- A. adenine
- B. cytosine
- C. thymine
- D. guanine

30. What substance is stored in the nucleus?

- A. DNA
- B. ATP
- C. Enzymes
- D. Protein

31. When is DNA copied?

- A. Metaphase
- B. Interphase
- C. Anaphase
- D. First phase

32. Oxidative phosphorylation is a process in which:

- A. Is synthesized organic compounds
- B. Energy is temporarily stored in an usable form
- C. Metabolites are transported
- D. Alleles are assorted

33. The allele that masks the effects of the other is _____ and the masked allele is _____.

- A. Homozygous, heterozygous
- B. Homozygous, recessive
- C. Dominant, recessive
- D. Dominant, incomplete

34. Crossing over takes place during _____.

- A. meiosis
- B. mitosis
- C. segregation
- D. linkage

35. If a father have type A blood and the mother has type AB, they would NOT

have a child with which of the following blood types?

- A. O
- B. A
- C. B
- D. AB

36. Down's syndrome is caused by _____ of the number _____ chromosome.

- A. monosomy, 23
- B. deletion, 21
- C. trisomy, 21
- D. trisomy, 23

37. Color blindness, a sex linked trait, appears more often in _____ than in _____.

- A. males, females
- B. females, males
- C. dogs, cats
- D. neither

38. Which of the following human traits is not a polygenic trait?

- A. skin color
- B. eye color
- C. height
- D. ABO blood type

39. The inheritance of human blood types is controlled by _____ alleles.

- A. different
- B. same
- C. one
- D. multiple

40. In a monohybrid cross between a homozygous dominant parent and a homozygous recessive parent, the F1 offspring will all have _____ genotypes, and the F1 phenotypes will resemble the _____ parent.

- A. heterozygous, dominant
- B. heterozygous, recessive
- C. homozygous, dominant
- D. homozygous, recessive

Part B: Short Answer Questions

❖ Write your answers in the space provided for each question!

- 1. How does adrenaline affect myocardial contraction?**
- 2. What are the blood vessels that carry blood into the right atrium?**
- 3. Name the process in which the passage of water goes from a region of higher concentration to a region of lower concentration through a semi permeable membrane?**
- 4. In what organelle does the Krebs cycle occur?**
- 5. What are the alleles of the gene that control blood type?**