

Quiz 1A January 11, 2006

1. The following is a list of six levels of organization that make up the human body:
- Tissue.
 - Cell.
 - Organ.
 - Molecule.
 - Organism.
 - Organ system.

The correct order from the smallest to the largest is:

- b, d, a, c, f, e.
 - d, b, a, c, f, e.
 - d, b, a, f, c, e.
 - d, b, c, a, f, e.
 - b, a, d, c, e, f.
2. The study of the structure of tissues is called
- Anatomy.
 - Cytology.
 - Histology.
 - Organ systems biology.
 - None of the above.
3. The process of the formation of a blood clot is an example of:
- Negative feedback.
 - Control of body temperature.
 - Positive feedback.
 - All of the above.
 - None of the above.
4. The study of function of the human body is known as:
- Anatomy.
 - Metabolism.
 - Histology.
 - Physiology.
 - None of the above.
5. The term that refers to all the chemical reactions underway in the body is known as:
- Differentiation.
 - Reproduction.
 - Excretion.
 - Metabolism.
 - Respiration.
6. Which of the organ systems includes the skin, hair sweat glands and nails?
- Urinary system.
 - Lymphatic system.
 - Integumentary system.
 - Nervous system.
 - None of the above.
7. The existence of a stable internal environment is known as:
- Negative feedback.
 - Positive feedback.
 - Homeostasis.
 - Autoregulation.
 - Extrinsic regulation.
8. Water molecules:
- Associate through hydrogen bonds.
 - Have partial positive and negative charges.
 - Have covalent bonds between the hydrogen and oxygen atoms.
 - All of the above
 - None of the above.

9. An important element in the human body is iron. The abbreviation for iron is:
- I
 - N
 - O
 - Fe
 - Ca
10. Which part of an atom plays a major role in chemical reactions?
- Neutrons.
 - Protons.
 - Electrons.
 - Atomic weight.
 - Nucleus.
11. NaCl is formed by what type of bonds?
- Ionic.
 - Polar.
 - Covalent.
 - Non-covalent.
 - Hydrogen.
12. The lightest of an atom's main constituents
- Protons.
 - Neutrons.
 - Electrons.
 - Nucleus.
 - None of the above.
13. Isotopes of an element differ from each other by the number of
- Protons.
 - Neutrons.
 - Electrons.
 - Nuclei.
 - a and c.
14. Atoms can complete their outer electron shells by equal sharing of electrons with other atoms. This results in the production of:
- Ionic bonds.
 - Non-polar covalent bonds.
 - Polar covalent bonds.
 - Hydrogen bonds.
 - None of the above.
15. The reaction $A + B \rightarrow AB$ may be described as:
- A hydrolysis reaction.
 - A synthesis reaction.
 - A dehydration reaction.
 - A decomposition reaction.
 - An exchange reaction.
16. Neon is an atom that has its first two energy levels completely filled. Neon has a total of:
- 2 electrons.
 - 8 electrons.
 - 10 electrons.
 - 20 electrons.
 - None of the above.
17. Substances that stabilize the pH of a solution by removing or replacing hydrogen ions are known as:
- Nutrients.
 - Metabolites.
 - Buffers.
 - Salts.
 - Enzymes.
18. Dissociation of a salt in water produces positively charged molecules called:
- Anions.
 - Omions.
 - Protons.
 - Electrons.
 - Cations.

19. Examples of homeostatic buffer systems in the human body are:
- (a) Carbonic acid-bicarbonate buffer system.
 - (b) Phosphate buffer system.
 - (c) Protein buffer system.
 - (d) None of the above.
 - (e) All of the above.
20. The definition of pH is:
- (a) log of the hydrogen ion concentration.
 - (b) Natural log of the hydrogen ion concentration.
 - (c) Negative log of the hydroxide ion concentration.
 - (d) Negative log of the hydrogen ion concentration.
 - (e) None of the above.
21. A pH of 1 would be considered as:
- (a) Acidic.
 - (b) A high hydrogen ion concentration.
 - (c) $1 \times 10^{-1} [\text{H}^+]$
 - (d) Close to the pH of the acid in your stomach during this quiz.
 - (e) All of the above.
22. Which of the following molecules does not contain a double or triple covalent bond:
- (a) H_2
 - (b) O_2
 - (c) CO_2
 - (d) N_2
 - (e) NO
23. A strong base may be described as:
- (a) Alkaline.
 - (b) A proton acceptor.
 - (c) Releases hydroxide ions.
 - (d) A pH value much greater than 7.
 - (e) All of the above.
24. Which of the following equations illustrates a typical decomposition reaction?
- (a) $\text{A} + \text{B} \rightarrow \text{AB}$
 - (b) $\text{AB} + \text{CD} \rightarrow \text{AD} + \text{CB}$
 - (c) $2\text{A}_2 + \text{B}_2 \rightarrow 2\text{A}_2\text{B}$
 - (d) $\text{AB} \rightarrow \text{A} + \text{B}$
 - (e) None of the above.
25. A chemical reaction may release energy as it proceeds to completion. This type of reaction is described as:
- (a) Endergonic.
 - (b) Exergonic.
 - (c) Catalytic.
 - (d) Anabolic.
 - (e) Catabolic.