Pre/Post-Lab Questions

Multiple choice:

1. What is the central dogma?
    a. RNA→Protein→DNA
    b. Protein→DNA→RNA
    c. DNA→RNA→Protein
    d. RNA→DNA→Protein
2. What determines protein function?
    a. Size
    b. Shape
    c. Color
    d. None of the above
3. What does primary structure determine?
    a. Size
    b. Function
    c. Shape
    d. All of the above
4. What kind of bond forms between two neighboring amino acids in a protein.
    a. Glycosidic bond
    b. Peptide bond
    c. Hydrogen bond
    d. Amino bond
5. Amino acid involved in disulfide bonding
    a. Cysteine
    b. Valine
    c. Lysine
    d. Alanine
6. Which level of protein structure is involved in the formation of alpha helices and beta sheets?
    a. Primary
    b. Secondary
    c. Tertiary
    d. Quaternary
7. What is an example of a neurotransmitter, chemical messenger, which sends messages to the brain?
    a. Acetylcholine
    b. GPCR
    c. Thyroxine
    d. Histamine
8. What type of bonding is mainly associated with forming secondary protein structures like alpha helices and beta sheets
    a. Cation-pi
    b. Disulfide bonding
    c. Hydrogen bonding
    d. London dispersion forces

9. When pipetting, what should one do if they touch the pipette tip they are about to use?
    a. Use it anyway
    b. Wipe it off before use
    c. Dispose of it in the biohazard bag at their bench
    d. None of the above.
10. What are Enzymes?
    a. Proteins that slow down a chemical reaction
    b. Proteins that speed up a chemical reaction
    c. Signaling molecules that aid in only building of structures
    d. Signaling molecules that aid in only break down of structures
11. In what system are antibodies present?
    a. Nervous system
    b. Excretory system
    c. Endocrine system
    d. Immune system
12. What bonds makes up primary structure of proteins?
    a. Peptide bonds
    b. Hydrogen bonds
    c. Ionic bonds
    d. Disulfide bonds
13. What are the components of an amino acid?
    a. Central carbon atom, amino group, carboxyl group, two variable side chains
    b. Central carbon atom, hydrogen atom, variable side chain
    c. Central carbon atom, hydrogen atom, amino group, carboxyl group, variable side chain
    d. Central carbon atom, hydrogen atom, amino group, carboxyl group
14. Which is NOT considered a protein?
    a. Enzymes
    b. Antibodies
    c. Cholesterol
    d. Collagen
15. What organelle is responsible for protein synthesis?
    a. Ribosome
    b. Nucleolus
    c. Lysosome
    d. Golgi apparatus