

Name Key

test # 26

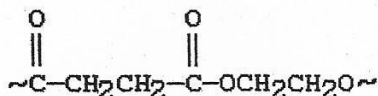
On the short Answer portion of the test, please show work on all questions for partial and full credit. On the multiple choice questions, there are NO partial credit

Part I: Multiple Choice: 60 pts (4 pts per question)

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) One example of a condensation polymer is 1) B
 A) polyvinyl chloride. B nylon.
 C) polyvinyl acetate. D) Plexiglass.

- 2) The segment of a polymer shown below represents a 2) A



- A) polyester. B) polyamide. C) polyethylene. D) polystyrene.
 3) The substance with the formula shown below is a(n) 3) C



- A) saponin. B) detergent. C fatty acid. D) alcohol.
 4) Animal fats and vegetable oil can be converted to soaps by reaction with 4) D
 A) sodium phosphate. B) sodium carbonate.
 C) sodium hyperchlorite. D sodium hydroxide.

- 5) Which of the following statements about soaps and detergents is **NOT** true? 5) C
 A) The hydrophobic end has the hydrocarbon chain.
 B) The hydrophilic end is ionic.
C) The hydrophilic end has the hydrocarbon chain.
 D) Soaps form micelles in solution.

- 6) The major advantage of LAS detergents over ABS detergents is that they 6) A
A) are biodegradable. B) lack phosphates.
 C) are effective in hard water. D) are soil based.

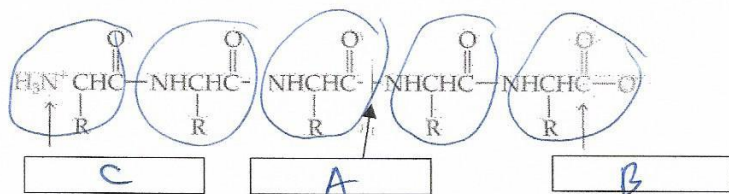
- 7) The active ingredient in chlorine laundry bleaches is 7) C
 A) chlorine, Cl₂. B) a mixture of CFCs.
C) sodium hypochlorite, NaOCl. D) sodium chloride, NaCl.

- 8) Which generally does **NOT** need to be proven safe and effective before marketing? 8) C
 A) drug B) food additive C) cosmetic D) a cooking oil

- 9) Deodorants act by 9) A
A) destroying odor-causing bacteria.
B) reacting with sweat glands to stop perspiration.
C) producing enzymes.
D) breaking down odorous chemicals as they are produced.
- 10) The fraction of compounds in a perfume that have the highest volatility would be called the 10) B
A) base note. B) top note. C) end note. D) middle note.
- 11) Chloroplasts in plants convert 11) C
A) light energy into electrical energy. B) light energy into heat energy.
C) light energy into chemical energy. D) heat energy into chemical energy.
- 12) Which of the following elements is NOT found in carbohydrates? 12) D
A) oxygen B) carbon C) hydrogen D) sulfur
- 13) Iodine number is a measure of 13) A
A) the degree of unsaturation of a fat.
B) the number of iodine atoms in a carbohydrate.
C) the number of iodine atoms in a fat.
D) the number of iodine atoms in a protein.
- 14) The bond between two amino acids is called a peptide bond. What type of bond is a peptide bond? 14) C
A) glyceride B) anhydride C) amide D) amine
- 15) The primary structure of a protein is determined by 15) D
A) the intertwining of protein molecules to form a "functional" protein.
B) the hydrogen bonding that gives the protein three dimensional shape.
C) the amino acid composition.
D) the order of amino acids in the protein.
- 16) Which of the following involves the formation of a covalent bond? 16) D
A) hydrogen bonding B) dispersion forces
C) salt bridges D) disulfide linkages

4. (a) How many amino acids are shown in the below molecule

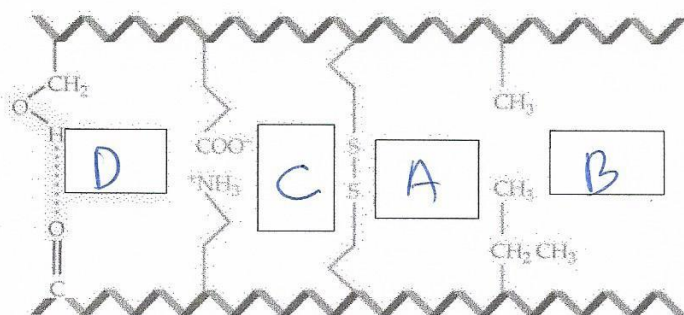
[(4 amino acids) or (5 amino acids) or (2 amino acids)] (circle one choice) (4 pts)



(b) fill in the blank with a letter (A) peptide bond (B) C terminal end (C) N terminal end (6 pts, 2 pts each blank)

4. (a) Match the following type of linkage in proteins with the shown by filling in the box with one of the possible

(A) disulfide linkage (B) dispersion force (C) ionic bonds (salt bridge) (D) hydrogen bonding (4 pts, 1 pt each blank)



(C) hydrogen bonding
D typo

(b) Match the above type of linkage to category of bonding by filing the line with the letters. You may not use all letters and each blank may have more than one answer. (4 pts, 2 pts each blank)

covalent bond A intermolecular force D, B