


Course No: DMEC 1303
Course Title:
Bio-Organo Chemistry
Date: 15 / 09 / 2014
No. of Questions: (4)
Time: 2 hours
Using Calculator (No)

University of
Palestine

Final Exam
2013/2014

Instructor Name: Mr. Kamal Jarbou
Student No.: _____
Student Name: _____
College Name: _____
Dep. / Specialist: _____
Using Dictionary (No)
Total Grade: 60

Question I. True Or False (20 Marks)

1. The main role of enzymes is to maximize the activation energy needed for a reaction ()
2. Biological systems are very sensitive to temperature differences ()
3. Increasing or decreasing PH to an extreme levels causes hydrolysis of enzymes ()
4. At high temperature the enzyme denaturate ()
5. Poison's and some drugs are inhibitors ()
6. Inhibitors work at high concentration only ()
7. The main source of nitrogen in the human body is HNO_3 ()
8. Aspartic acid is a basic amino acid ()
9. A peptide bond is a result of binding two amino acids by dehydration reaction ()
10. Insulin helps in rising the sugar percentage in the blood ()
11. Vasopressin causes hypertension()
12. Oxytocin improves the mothers' lactation()
13. Keratin is a derived protein found in hair and skin ()
14. ADP is a diphosphate nucleic acid ()
15. Alkynes have at least one triple bond between the carbon atoms()
16. Pentoses are a five carbon sugar()
17. Glycogen is a source of energy in animals stored in pancreas ()
18. HDL, LDL are lipoproteins found in the blood()
19. Monosaccharide have either ketone or aldehyde group()
20. The useful kind of lipoprotein in the blood is LDL()

Question II. Choose the correct answer (20 Marks)

- 1. How many water molecules are formed when a linkage of 18 amino acids to form a peptide by dehydration:**
 - a) 9
 - b) 18
 - c) 17
 - d) 20
- 2. Which of the following is a lipid which have a wide range of physiological action :**
 - a) Mannose
 - b) Prostaglandin
 - c) Insulin
 - d) Vitamin
- 3. Cholesterol is:**
 - a) Derived lipid
 - b) Compound lipids
 - c) Simple lipid
 - d) None
- 4. Which of the following is a type of amino acid:**
 - a) Neutral amino acid
 - b) Basic amino acid
 - c) Acidic amino acid
 - d) All of the above
- 5. Acidic amino acid have :**
 - a) Hydroxide group
 - b) Phosphate group
 - c) Metal attached to the amino group
 - d) Tow carboxylic acid groups
- 6. Which compounds are water soluble :**
 - a) Protein
 - b) Monosaccharide
 - c) Fats
 - d) A + B
- 7. The process in which a solid is formed from a protein by heat is called:**
 - a) Denaturation
 - b) Hydrolysis
 - c) Reduction
 - d) Dialysis

- 8. Hemoglobin has a red color due to**
- Ultraviolet light absorption
 - Fe atom in the complex
 - Oxygen
 - Hydrogen
- 9. Nucleic acid is formed of :**
- Phosphoric group
 - Pentose sugar
 - Nitrogen base
 - All of the above
- 10. Either has the general structure of:**
- R-OH
 - R-O-R₁
 - R-NH₂
 - R-CHO
- 11. Which of the following sugars are fermentable sugar:**
- Maltose
 - Fructose
 - Glucose
 - A+C
- 12. How increasing or decreasing PH to extreme level affects the work of enzymes:**
- Causes hydrolysis
 - Causes dialysis
 - Causes denaturation
 - None of the above
- 13. Unsaturated fatty acids contains:**
- Single bond
 - Triple bond
 - Double bond
 - None of the above
- 14. The main source of energy in human body is:**
- Protein
 - Carbohydrates
 - Vitamins
 - Fats
- 15. The enzyme works at :**
- The active site
 - The head of protein
 - Reversibly
 - None of the above

16. Proteins are important because :

- a) Has many types
- b) Has high biological work
- c) Gives energy
- d) None of the above

17. Saturated fatty acids are :

- a) Solids
- b) Liquids
- c) Gases
- d) Colloid solution

18. The nucleic acid that stores the genetic information is:

- a) RNA
- b) DNA
- c) ATP
- d) AMP

19. Aromatic compounds are usually:

- a) Solids
- b) Have a strong smell
- c) Have a white color
- d) Have a sweet taste

20. Polysaccharide are complexes have number of molecules:

- a) More than 10
- b) 2-10
- c) Zero
- d) None of the above

Question III.

Explain the following (10 Marks)

1) Infants have high concentration of lactase enzyme than adult ?

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2) Using Yeast in packing ?

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3) Using catalyst in reactions ?

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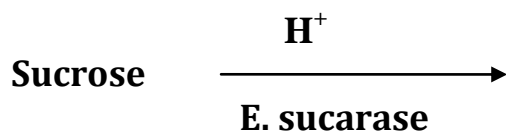
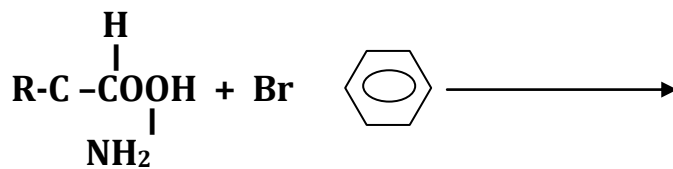
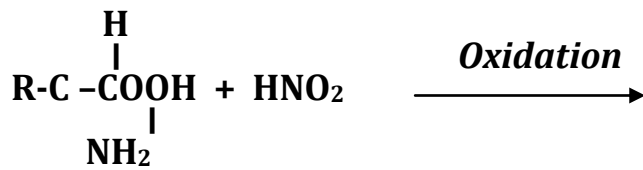
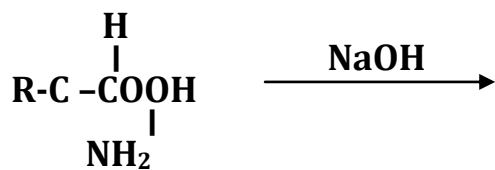
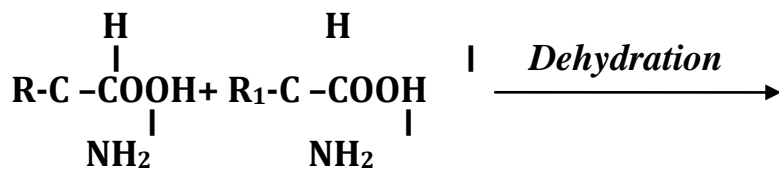
4) Using collagen in cosmetic surgery ?

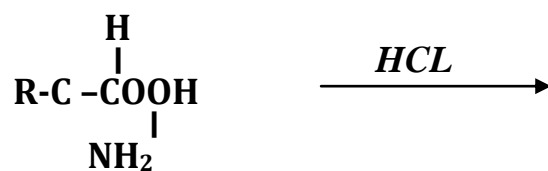
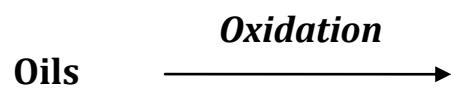
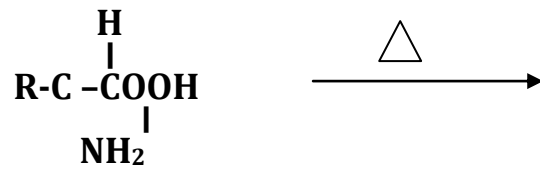
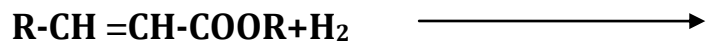
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5) Using cellulose in diets for fatty people ?

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Question IV. Complete the following reactions (10 Marks)





*End of Questions
Good Luck*