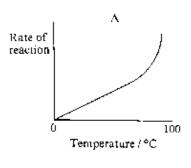
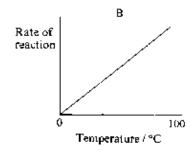
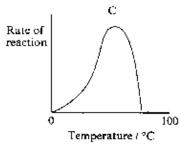
Organic Chemistry Test

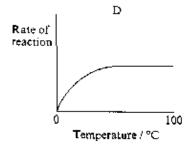
!Attenzioni, Per Favori! Write all answers on your own lined paper!

1. What are the three most common elements in living org	anisms?							
A) Nitrogen, hydrogen and oxygen. B) Carbon, nitroghydrogen. D) Carbon, oxygen and hydrogen.	gen and oxygen. C) Carbon, nitrogen and							
Atoms share electrons unequally in a(n) bond. covalent; D) hydrogen.	A) ionic; B) nonpolar covalent; C) polar							
3. A water molecule shows? A) polarity; B) hydrogen-bonding capacity; C) heat resistance; D) solvency; E) answers B and C; F) all of the above.								
Matching: Match each molecule with the most suitable description:								
4? Contains long sequences of amino acids	a. carbohydrate b. phospholipid							
5? Contains one or more sugar monomers	c. protein d. steroids							
6? Contains glycerol, fatty acids, phosphate	u. steroius							
7? Includes hormones like estrogen & testosterone								
8. Phospholipids are more soluble in water than triglycerides (neutral lipids) because A) phospholipids contain glycerol. B) phospholipids contain a phosphate which due to its polar nature is attracted to water. C) phospholipids have two fatty acid chains. D) phospholipids have three fatty acid chains.								
9. Which of the following characteristics is <u>not</u> associated with noncompetitive inhibition of an enzyme's activity? A) A molecule mimics the substrate and competes for the active site. B) A regulatory molecule binds to a site remote from the active site and deforms the active site. C) Inhibitor and activator molecules may compete with one another. D) The enzyme usually has a quaternary structure.								
10. The 'induced fit' model of enzyme action helps to explain								
 A) the ability of some enzymes to bind to several different substrates. B) enzyme denaturation by high temperatures. C) enzyme denaturation by extreme pH. D) the inhibitory effect of high substrate concentration. 								
 Denaturation of an enzyme involves A) lowering its a bonds. C) altering its three-dimensional structure. 								
12. An example of a disaccharide includes: A) glucose; answers.	B) sucrose; C) fructose; D) All of these							
13. Which of the following graphs best presents the relationship between <i>temperature</i> and the <i>rate of an enzyme controlled reaction</i> ?								









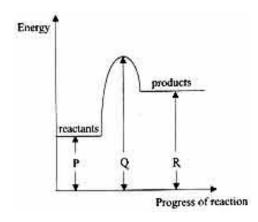
<u>Matching</u>: Match the names below with their structure shown below. Note that there is one answer not used.

- A. Glycerol
- C. Amino acid
- B. Fatty Acid
- D. Glucose

- 17. How do enzymes catalyze reactions?
 - A) They change the activation energy. B) They change potential energy to kinetic energy. C) They change kinetic energy into reaction energy. D) They decrease the reaction energy and increase the activation energy.

15 ___?__

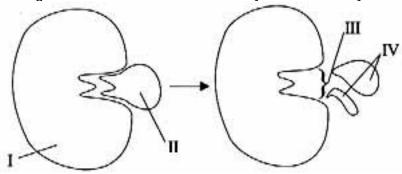
- 18. During digestion, large molecules like starch are <u>broken down</u> into glucose & fructose by enzymes which help replace water in the connecting bonds between each monosaccharide. This reaction is an example of A) condensation; B) hydrolysis; C) replication; D) competitive inhibition.
- 19. The diagram below represents the energy changes in a reaction.



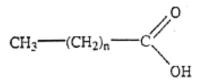
What is the activation energy of the reaction (reactants going to products)?

- A) Q-R;
- B) Q-P
- C) R-P
- D) P + Q

The figure below shows the lock-and-key" model of enzyme action on a substrate.



- 20. Which part of the diagram acts as a key?
- A) I
- B) II
- C) III
- D) IV
- 21. Which part is the product/s?
- A) I
- B) II
- C) III
- D) IV
- 22. Which of the following reactions occurs when a dipeptide is formed from amino acids?
 - A) Hydrolysis
- B) Denaturation
- C) Condensation
- D) Oxidation
- 23. Term meaning sticking of 2 types of molecules to each other (like water to glass).
- A) Nonpolar
- B) universal solvent
- C) Cohesion
- D) Adhesion
- 24. What molecule does the following diagram represent?



- A) An amino acid
- B) A fatty acid
- C) A phospholipid
- D) A monosaccharide

25.	The term cohesion means A) molecules of the same substance that are attracted to or stick to each other; B) molecules of different substances that are attracted to or stick to each other; C) molecules of the same substance that repel each other; D) molecules of different substances that repel each other.							
26.			which helps co Inhibitors	ntrol or speed C) Catalysts			emical reactions. ady batteries	
27.	What type of polysaccharide is found in cell walls, wood and paper?							
	A) Sucrose	B) Cellulose	C) Glycoge	en D) Sta	arch			
28.	What term means any two simple sugars that are bonded together?							
	A) Dipeptide	B) Dilip	oid	C) Dicarbohy	drate	D) Disa	ccharide	
29.	Identify the form of polysaccharide known as animal starch because our livers remove all glucose molecules from the blood in order to make this energy storage molecule.							
	A) Glycogen	B) Glucose	C) Phospholipi	ds D) Ar	nylose			
30. Identify the type of chemical bond that links 2 amino acids together as a dipeptide is made.								
A) A	Atomic bond	B) Hydrogen	bond C) sad	charide bond	D) James	Bond	E) Peptide bond	