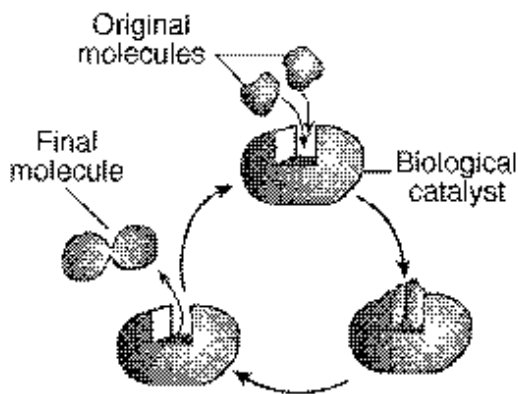


Name: _____

- 1) Which row in the chart below contains correct information concerning synthesis?

Row	Building Blocks	Substance Synthesized Using the Building Blocks
(1)	glucose molecules	DNA
(2)	simple sugars	protein
(3)	amino acids	enzyme
(4)	molecular bases	starch

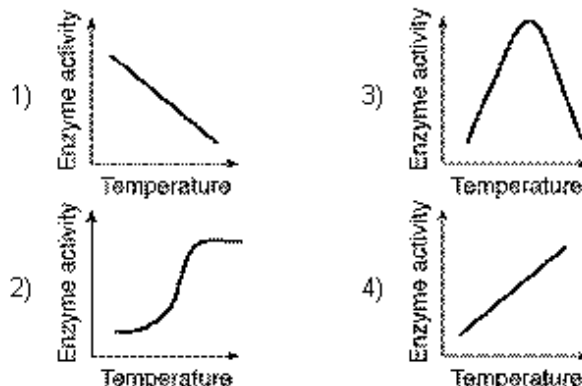
- 1) 1 2) 2 3) 3 4) 4
- 2) Most of the starch stored in the cells of a potato is composed of molecules that originally entered these cells as
- 1) minerals 3) simple sugars
2) amino acids 4) enzymes
- 3) The diagram below represents a series of reactions that can occur in an organism.



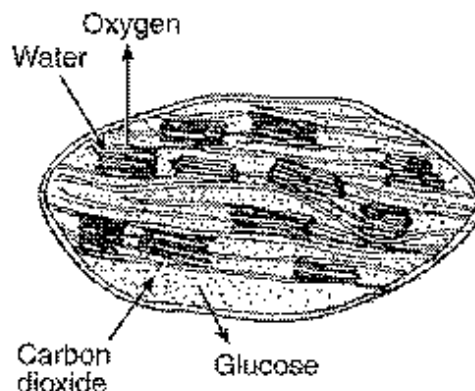
This diagram *best* illustrates the relationship between

- 1) amino acids and glucose
2) ribosomes and sugars
3) enzymes and synthesis
4) antigens and immunity

- 4) Enzymes have an optimum temperature at which they work best. Temperatures above and below this optimum will decrease enzyme activity. Which graph *best* illustrates the effect of temperature on enzyme activity?

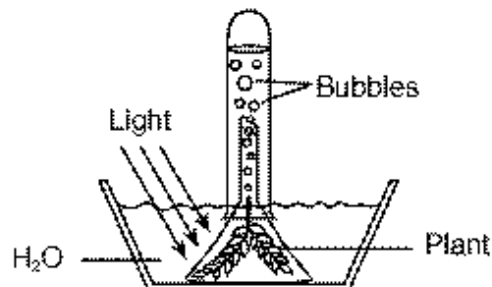


- 5) The diagram below illustrates the movement of materials involved in a process that is vital for the energy needs of organisms.



The process illustrated occurs within

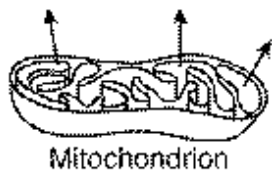
- 1) vacuoles 3) chloroplasts
2) ribosomes 4) mitochondria
- 6) The green aquatic plant represented in the diagram below was exposed to light for several hours.



Which gas would most likely be found in the *greatest* amount in the bubbles?

- 1) oxygen 3) nitrogen
2) carbon dioxide 4) ozone

- 7) The diagram below represents a structure involved in cellular respiration.

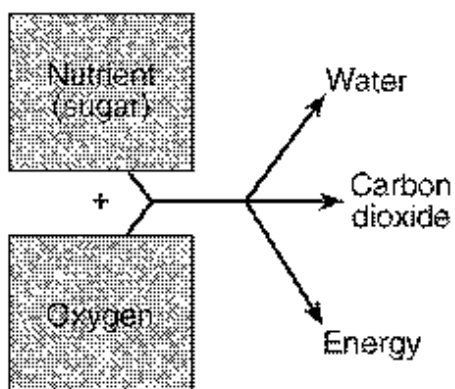


The release of which substance is represented by the arrows?

- 1) carbon dioxide 3) oxygen
2) DNA 4) glucose

Questions 8 and 9 refer to the following:

The diagram below illustrates a process by which energy is released in organisms.



- 8) Cells usually transfer the energy that is released directly to

- 1) glucose 3) enzymes
2) ATP 4) oxygen

- 9) The energy released in the process shown was originally present in

- 1) sunlight and then transferred to sugar
2) sunlight and then transferred to oxygen
3) the sugar and then transferred to oxygen
4) the oxygen and then transferred to sugar

- 10) Some internal environmental factors may interfere with the ability of an enzyme to function efficiently.

- (a) Identify *two* internal environmental factors that directly influence the rate of enzyme action.
- (b) Explain why changing the shape of an enzyme could affect the ability of the enzyme to function.

PLEASE NOTE #10 IS A CONSTRUCTED RESPONSE QUESTION