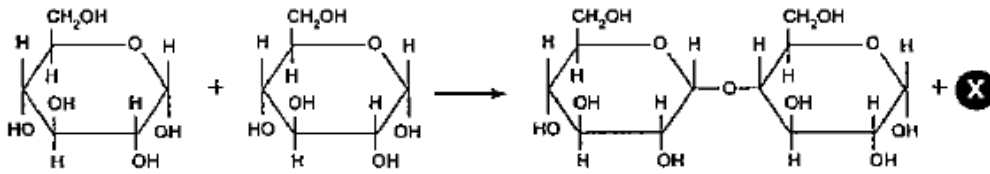


Biological molecules sample exam questions

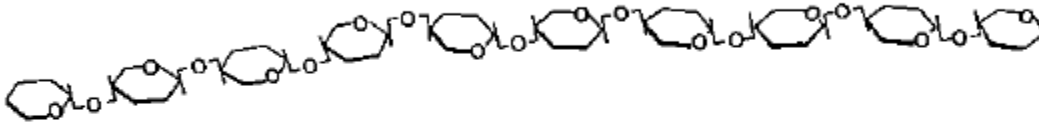
Use the following diagram to answer question 6.



6. In the reaction above, what is molecule X?

- A. water
- B. an acid
- C. glucose
- D. an enzyme

Use the following diagram to answer question 8.



8. The molecule above would likely be found in a

- A. vacuole.
- B. liver cell.
- C. mitochondria.
- D. plant cell wall.

9. Hemoglobin and antibodies are all composed of

- A. lipids.
- B. proteins.
- C. carbohydrates.
- D. polysaccharides.

Use the following information to answer question 4.

- solvent
- catalyst
- lubricant
- temperature regulator

4. How many of the above are roles of water in the body?

- A. 1
- B. 2
- C. 3
- D. 4

8. Which of the following is an example of hydrolysis?

- A. production of mRNA from DNA
- B. conversion of glucose to glycogen
- C. absorption of fatty acids and glycerol
- D. formation of amino acids from proteins

8. Unsaturated fatty acids, like those found in fish oils, are characterized by

- A. the ability to bond with glycerol to make lipids.
- B. bonds between an amine and a carboxyl (acid) group.
- C. having only single bonds between the carbon atoms in the chain.
- D. some carbon atoms in the chain that bond to only one hydrogen atom.

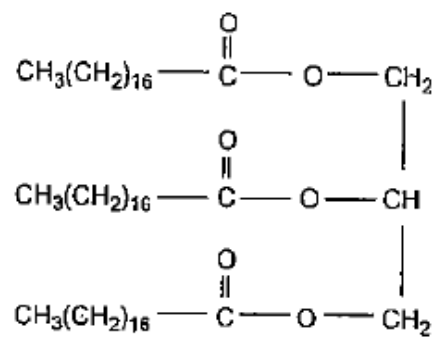
5. Neutral fats do not dissolve in water because

- A. water is non-polar.
- B. water is polar and neutral fats are non-polar.
- C. neutral fats are polar and form hydrogen bonds with water.
- D. neutral fats break down into ions when combined with water.

9. Primary protein structure is dependent on

- A. peptide bonding.
- B. hydrogen bonding.
- C. bonding between R-groups.
- D. bonds between protein molecules.

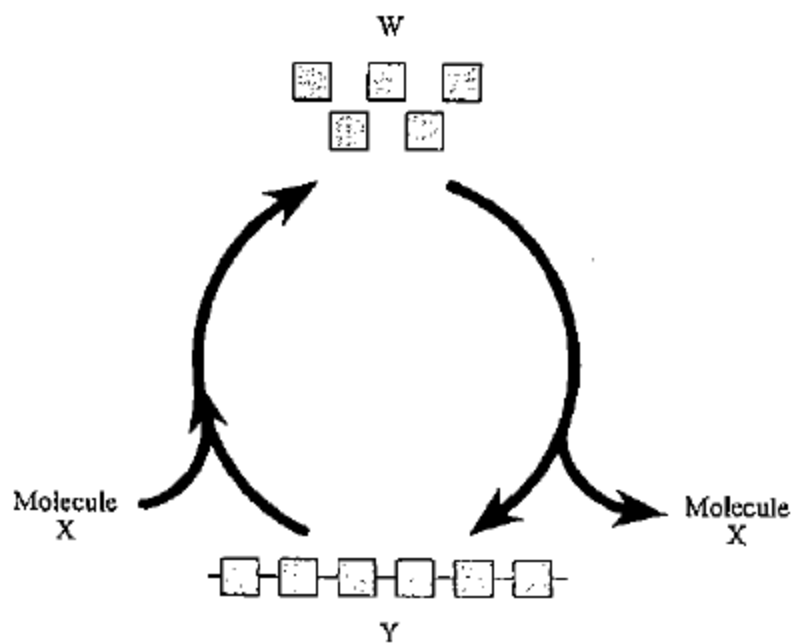
Use the following diagram to answer question 7.



7. The chemical compound above is classified as a

- A. lipid.
- B. protein.
- C. nucleic acid.
- D. carbohydrate.

Use the following diagram to answer questions 5 and 6.



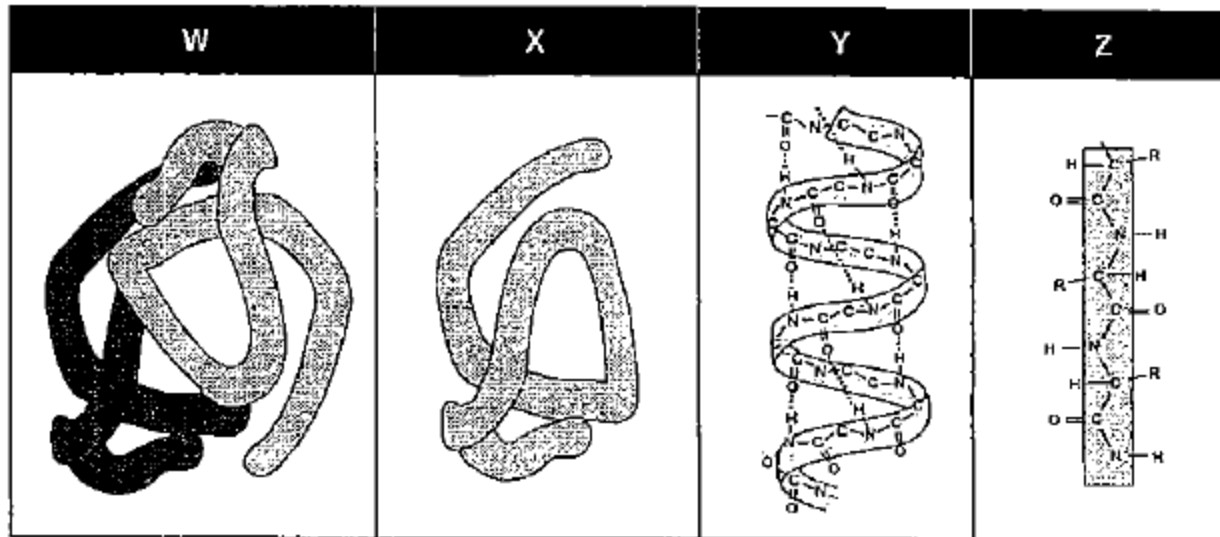
5. Which of the following correctly identifies molecules W and Y?

	W	Y
A.	proteins	amino acids
B.	glucose	glycogen
C.	nucleic acids	nucleotides
D.	lipids	fatty acids

6. What is molecule X?

- A. ATP
- B. DNA
- C. water
- D. peptides

Use the following diagrams to answer question 10.



10. Which diagram represents the tertiary structure of a protein?

- A. W
- B. X
- C. Y
- D. Z