

BIOLOGY

1. Cells store energy when:
 - A. they break down sucrose to glucose and fructose
 - B. the third phosphate group breaks off from an ATP molecule
 - C. a third phosphate group is bonded to an ATP molecule
 - D. ions are released into the bloodstream

2. Organisms that do not use oxygen and die in the presence of oxygen are called:
 - A. obligate aerobes
 - B. facultative aerobes
 - C. obligate anaerobes
 - D. facultative anaerobes

3. Which vector and pathogen are correct?
 - A. mosquito — sleeping sickness
 - B. tick — Chagas disease
 - C. mosquito — malaria
 - D. fly — Lyme disease

4. Ovulation is a process where:
 - A. sperm are ejected from the penis
 - B. an egg is produced and brought to maturity
 - C. a zygote implants on the uterine wall
 - D. an egg is released from the ovary

CHEMISTRY

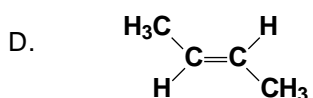
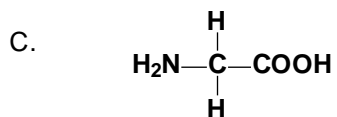
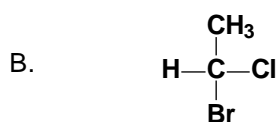
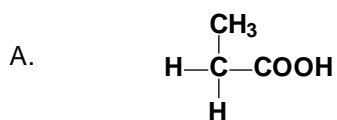
1. Reaction between butene and chlorine is:

- A. Addition;
- B. Condensation;
- C. Polymerisation;
- D. Free radical substitution.

2. How many hydrogen atoms are contained in one mole of ethanol, C₂H₅OH?

- A. 5;
- B. 6;
- C. 1.0×10^{23} ;
- D. 3.6×10^{24} .

3. Which one of the following molecules exhibits optical activity?



4. The subatomic particles found in the nucleus of atom are:

- A. neutrons and electrons;
- B. electrons and protons;
- C. protons and neutrons;
- D. β -particles and protons.