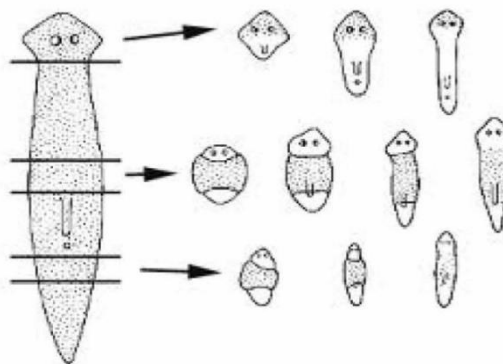


1. Which mode of reproduction has been shown in the following figure?

- (a) Asexual mode of reproduction
- (b) Sexual mode of reproduction
- (c) Parthenogenesis
- (d) All of these



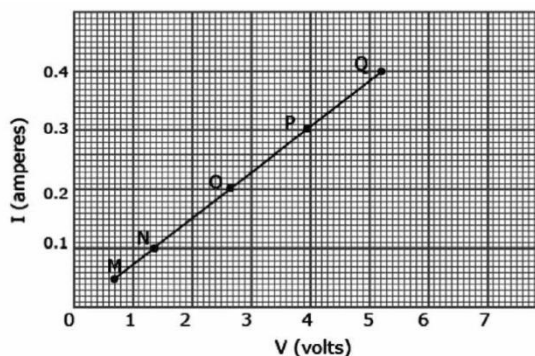
2. If 100J of energy is available at the producer level, calculate the amount of energy available to hawk in the following food chain.

Green plants	Grasshopper	Frog	Snake
Hawk			

- (a) 0.1 J
- (b) 0.01J
- (c) 10 J
- (d) 10000 J

3. Examine the graph and calculate the resistance of the coil at the point Q?

- (a) 12 Ohms
- (b) 5.2 Ohms
- (c) 13 Ohms
- (d) 0.4 Ohms
- (e) None of these

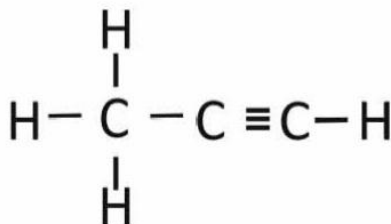


4. The table given below shows four chemical reactions:

Equation	Chemical Equation
1.	$2\text{Al} + 3\text{H}_2\text{O} \rightarrow \text{Al}_2\text{O}_3 + 3\text{H}_2$
2.	$\text{Fe} + 4\text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + 4\text{H}_2$
3.	$\text{Fe} + \text{HCl} \rightarrow \text{FeCl}_2 + \text{H}_2$
4.	$\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$

Which of the preceding chemical reactions satisfy the law of conservation of mass?

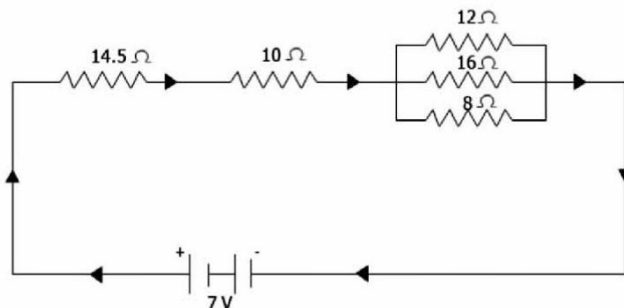
- (A) Equation 1 and 2
 (B) Equation 1 and 4
 (C) Equation 3 and 4
 (D) Equation 2 and 4
5. Name the hydrocarbon given below.



- (a) Propanal
 (b) Propene
 (c) Propyne
 (d) Propanoic acid
6. On which one of the following factors the strength of an electromagnet depends?
- (A) The number of turns in the coil
 (B) The current flowing in the coil
 (C) The length of air gap between its poles
 (D) All of these
7. There is a device in the motor which is used to reverse the direction of current in the coil of a motor. What is the

- (a) Commutator
- (b) Magnetic field
- (c) Armature
- (d) All of these
8. What are the end products of the anaerobic respiration that the yeast perform?
- (A) Carbon dioxide, water and energy
- (B) Alcohol, carbon dioxide and energy
- (C) Lactic acid, carbon dioxide, and energy
- (D) Alcohol, water and energy
9. Which one of the following statements correctly describes the buoyant force?
- (A) The buoyant force is the downward force that a fluid exerts on fluid when it displaces the fluid.
- (B) The buoyant force is the upward force that a fluid exerts on an object in the fluid.
- (C) The buoyant force is the upward force that a fluid exerts on fluid when it displaces the fluid.
- (D) The buoyant force is the downward force that a fluid exerts on an object in the fluid.
10. Examine the given circuit and calculate the total current flowing in the circuit.

- (A) 28 ampere
- (B) 4 ampere
- (C) 0.25 ampere
- (D) 3.7 ampere





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