iOS

International Olympiad of Science

Presented by:
SILVER ZONE FOUNDATION NEW DELHI - INDIA

Organized by:
Silverzone Foundation
New Delhi, India
For supremacy in Mathematics
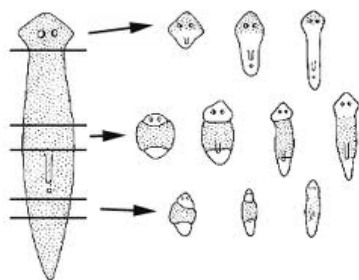www.silverzone.org

CLASS 10th SAMPLE QUESTIONS

The Actual Question Paper Contains 40 Questions. The Duration of the Test Paper is 50 Minutes.

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 100 J 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) 0.01 J
(C) 10 J
(D) 10000 J

**3.** Examine the graph and calculate the resistance of the coil at the point Q.
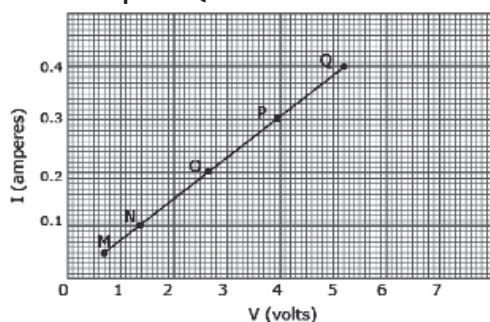
(A) 12 Ohms
(B) 5.2 Ohms
(C) 13 Ohms
(D) 0.4 Ohms

4. pH values of four solutions A, B, C and D are 7, 8, 9, 10 respectively. Put them in a sequence according to their nature.

(A) Acidic, acidic, neutral, basic
(B) Acidic, neutral, basic, basic
(C) Acidic, acidic, acidic, neutral
(D) Neutral, basic, basic, basic

5. Name the hydrocarbon given below.

$$H-\overset{\overset{\displaystyle H}{|}}{\underset{\underset{\displaystyle H}{|}}{C}}-C\equiv C-H$$
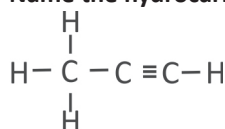
(A) Propanal
(B) Propene
(C) Propyne
(D) Propanoic acid

6. Match the distances given in column A with the appropriate images in column B.

Concave mirror of focal length 15 cm	
Column A	*Column B*
a. 10 cm	*i. a magnified real image*
b. 20 cm	*ii. a diminished real image*
c. 30 cm	*iii. a magnified virtual image*
d. 35 cm	*iv. an image of same size as the object*

(A) a → iii, b → ii, c → iv, d → i
(B) a → ii, b → i, c → iv, d → iii
(C) a → i, b → iii, c → iv, d → ii
(D) a → iii, b → i, c → iv, d → ii

7. The electronic configuration of an element X is as follows:

K   L   M
2,   8,   6

Which one of the following options is incorrect?

A. Group number of element X in periodic table is 6.
B. Period number of element X in periodic table is 3.
C. Number of valence electrons in one atom of element X is 6.
D. Valency of element X is 2.

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 combination of statements is correct?

i. C_2H_2 is a hydrocarbon.

ii. Butane is a saturated hydrocarbon.

iii. Ethyne is the only hydrocarbon in which triple bond between two carbon atoms exist.

iv. All hydrocarbons belong to alkene groups contains atleast one double bond between two carbon atoms.

v. There are two double bonds in the hydrocarbon named as propene.

A. i, ii and iv   B. i, ii, iii and iv

C. ii, iv and v   D. i, iii, iv and v

10. Examine the given circuit and calculate the total current flowing in the circuit.
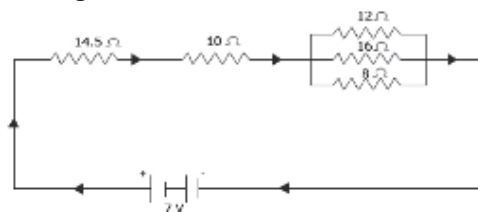
(A) 28 ampere   (B) 4 ampere

(C) 0.25 ampere   (D) 3.7 ampere

ANSWERS

1. (A)	2. (B)	3. (C)	4. (D)	5. (C)	6. (D)	7. (A)	8. (B)	9. (A)	10. (C)