

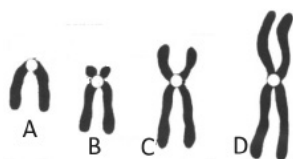
International Olympiad of Science



CLASS 9th SAMPLE QUESTIONS

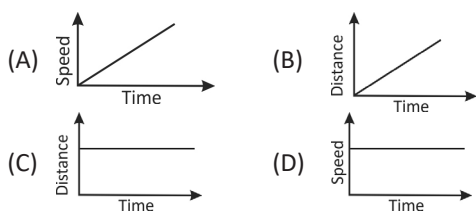
The Actual Question Paper Contains 40 Questions. The Duration of the Test Paper is 50 Minutes.

1. Which one of the following is the acrocentric chromosome?



- (A) A (B) B (C) C (D) D

2. Which one of the following graphs shows uniform acceleration?



3. Choose the isobar from the following.

- (A) ${}^6\text{C}_{12}$ and ${}^6\text{C}_{14}$ (B) ${}^{92}\text{U}_{235}$ and ${}^{92}\text{C}_{238}$
 (C) ${}^1\text{H}_1$ and ${}^1\text{C}_2$ (D) ${}^{18}\text{Ar}_{40}$ and ${}^{20}\text{Ca}_{40}$

4. Humans are classified according to the following hierarchy:

Animalia → Chordata → Mammalia → Primates → Hominidae → Homo → Sapiens

Which category is represented by Primates in the above hierarchy?

- (A) Order (B) Genus
 (C) Kingdom (D) Family

5. What is the number of water molecules contained in a drop of water weighing 0.12 g?

- (A) 2.007×10^{21} (B) 4.014×10^{21}
 (C) 2.007×10^{22} (D) 4.014×10^{22}

6. Calculate the number of molecules of chloroform (CHCl_3) weighing 0.0239 g (H = 1, C = 12, Cl = 35.5).

- (A) 0.2046×10^{17} (B) 1.2046×10^{20}
 (C) 2.2046×10^{22} (D) 3.1046×10^{21}

7. Which of the following is not a characteristic of pure substances?

- (A) A pure substance contains only one type of particles.
 (B) A pure substance has definite composition.
 (C) A pure substance may be homogeneous or heterogeneous.
 (D) A pure substance has definite melting and boiling point.

8. Fill in the blanks with the correct combination of terms.

The disease which lasts for P periods of time is called Q disease. R and S are its two examples.

- A. P-very long, Q-acute, R-common cold, S-dysentery
 B. P-very short, Q-acute, R-common cold, S-dysentery
 C. P-very short, Q-acute, R-cancer, S-dysentery
 D. P-very long, Q-chronic, R-common cold, S-dysentery

9. Which one of the following shows that cathode rays are negatively charged particles?

- (A) Cathode rays produce greenish light on striking the wall of discharge tube
 (B) Cathode rays cast shadows of the objects placed in their path
 (C) Cathode rays move the blades of a paddle wheel placed in their path
 (D) Cathode rays are deflected towards the positive plate of an electric field

10. Classify the following materials into elements, compounds and mixtures:

Methane, granite, blood, sodium, silver, iron, sugar

- (A) **Elements:** Sodium and silver
Compounds: Methane, Granite, sugar
Mixtures: Iron, blood
 (B) **Elements:** Sodium, silver, iron,
Compounds: Methane, sugar
Mixtures: Granite, blood
 (C) **Elements:** Sodium, silver, iron,
Compounds: Methane, blood
Mixtures: Granite, sugar
 (D) **Elements:** Methane, silver, iron,
Compounds: Sodium, sugar
Mixtures: Granite, blood

ANSWERS

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