



Here are some multiple-choice questions (MCQs) related to the topic of hydrogen that you may encounter in the NEET (National Eligibility cum Entrance Test) for medical and dental admissions in India. These questions cover various aspects of hydrogen, including its properties, isotopes, and applications.

- Which of the following is the lightest element in the periodic table?
  - Helium
  - Hydrogen
  - Oxygen
  - Carbon
- Hydrogen exists in three isotopic forms. Which one of the following is not an isotope of hydrogen?
  - Protium
  - Deuterium
  - Tritium
  - Helium
- Which of the following is not a property of hydrogen gas ( $H_2$ )?
  - It is colorless and odorless.
  - It is the most abundant element in the universe.
  - It is highly flammable and can burn in the presence of oxygen.
  - It is a good conductor of electricity in its gaseous state.
- In the Haber-Bosch process, hydrogen gas is primarily used for the synthesis of:
  - Ammonia ( $NH_3$ )
  - Methane ( $CH_4$ )
  - Oxygen ( $O_2$ )
  - Ethanol ( $C_2H_5OH$ )
- Which metal hydride is commonly used as a hydrogen storage material in fuel cell technology?
  - Sodium hydride ( $NaH$ )
  - Calcium hydride ( $CaH_2$ )
  - Lithium hydride ( $LiH$ )
  - Potassium hydride ( $KH$ )
- Hydrogen gas is used as a reducing agent in the extraction of which element from its ore?
  - Aluminum
  - Iron
  - Copper
  - Zinc
- What is the chemical formula of the compound formed when hydrogen gas reacts with chlorine gas?
  - $HCl$
  - $H_2Cl_2$
  - $Cl_2H_2$
  - $HCl_2$

Answers:

- b) Hydrogen
- d) Helium
- d) It is a good conductor of electricity in its gaseous state.
- a) Ammonia ( $NH_3$ )
- b) Calcium hydride ( $CaH_2$ )
- a) Aluminum
- a)  $HCl$

These questions cover fundamental concepts related to hydrogen, its properties, and its applications. Remember to study the topic thoroughly for the NEET exam, as the actual questions may vary in difficulty and format.