

DPP

DAILY PRACTICE PROBLEMS

CLASS : XIIth
DATE :

SUBJECT : CHEMISTRY
DPP NO. : 1

Topic :-HYDROGEN

- On bubbling CO_2 through a solution of barium peroxide in water:
a) O_2 is formed b) H_2CO_3 is formed c) H_2O_2 is formed d) H_2 is formed
- The most reactive state of hydrogen is:
a) Atomic hydrogen b) Heavy hydrogen c) Molecular hydrogen d) Nascent hydrogen
- The number of protons, electrons and neutrons respectively in a molecule of heavy water is:
a) 10, 10, 10 b) 8, 10, 11 c) 10, 11, 10 d) 11, 10, 10
- Ordinary hydrogen is a mixture at:
a) 75% ortho H_2 + 25% para H_2
b) 25% ortho H_2 + 75% para H_2
c) 50% ortho H_2 + 50% para H_2
d) 99% para H_2 + 1%ortho H_2
- Heavy water freezes at:
a) -3.8°C b) 3.8°C c) 0°C d) 3.2°C
- The electronic configuration of deuterium is:
a) $1s^2$ b) $1s^1, 2s^2$ c) $1s^2, 2s^1$ d) $1s^1$
- Smell of H_2O_2 resembles:
a) Alcohol b) Alkali c) Nitric acid d) Chloroform
- Hydrogen produced in contact with substance which is to be reduced is:
a) Ortho H_2 b) Para H_2 c) Active H d) Nascent H
- H_2O_2 acts as an oxidizing agent in:
a) Neutral medium
b) Acidic medium
c) Alkaline medium
d) acidic as well as in alkaline medium
- The concentration of H_2O_2 solution of '10 volume' is
a) 30% b) 3% c) 1% d) 10%
- Water possesses a high dielectric constant, therefore
a) It always contains ions b) It is universal solvent
c) Can dissolve covalent compounds d) Can conduct electricity

12. Tailing of mercury is a laboratory test for:
a) O₃ b) Hg c) Cl₂ d) O₂
13. Which method cannot be used to remove hardness of water?
a) Clark's method
b) By adding washing soda
c) Calgon process
d) Filtration
14. Which of the following could act as a propellant for rockets?
a) Liq. H₂ + Liq. O₂ b) Liq. N₂ + Liq. O₂ c) Liq. H₂ + Liq. N₂ d) Liq. O₂ + Liq. Ar
15. When electric current is passed through an ionic hydride in the molten state,
a) Hydrogen is liberated at the cathode
b) Hydrogen is liberated at the anode
c) Hydride ion migrates towards cathode
d) No reaction takes place
16. Deuterium was discovered by:
a) Urey b) Aston c) Rutherford d) Chadwick
17. The percentage by weight of hydrogen in H₂O₂ is:
a) 50 b) 25 c) 6.25 d) 5.88
18. Ortho and para-hydrogen differ in the:
a) Number of protons b) Molecular weight c) Nature of spins of protons d) Nature of spins of electrons
19. Decomposition of H₂O₂ is retarded by:
a) Acetanilide b) Alcohol c) H₃PO₄ d) All of these
20. Heavy water possesses:
a) Insoluble impurities like silica
b) Impurities like carbonates and bicarbonates of calcium and magnesium
c) High density and different physical properties than those of water
d) The capacity to expedite the rate of nuclear reactions