

CLASS : XIIth

DATE :

SUBJECT : CHEMISTRY

DPP NO. :9

Topic :-HYDROGEN

- Hydrogen resembles in many of its properties with:
a) Alkali metals b) Halogens c) Both (a) and (b) d) None of these
- Hydrogen is not obtained when zinc reacts with
a) Cold water b) hot NaOH solution c) dil. H_2SO_4 d) dil. HCl
- The H-O-H angle in water molecule is about
a) 105° b) 102° c) 180° d) 90°
- Hydrogen adsorbed on palladium is known as:
a) Atomic H b) Nascent H c) Occluded H d) Heavy H
- Hydrogen molecule differs from chlorine molecule in the following respect
a) Hydrogen molecule is non-polar but chlorine molecule is polar
b) Hydrogen molecule is polar while chlorine molecule is non-polar
c) Hydrogen molecule can form intermolecular hydrogen bonds but chlorine molecule does not
d) Hydrogen molecule cannot participate in coordination bond formation but chlorine molecule can
- Decomposition of H_2O_2 is accelerated by:
a) Traces of acids b) Finely divided metals c) Acetanilide d) Alcohol
- Which one of the following is used for reviving the exhausted 'permutit'?
a) HCl solution b) 10% $CaCl_2$ solution c) 10% $MgCl_2$ solution d) 10% NaCl solution
- The volume strength of 1.5 N H_2O_2 solution is
a) 16.8 L b) 8.4 L c) 4.2 L d) 5.2 L
- Nascent hydrogen consists of:
a) Hydrogen atoms with excess energy
b) Hydrogen molecules with excess energy
c) Hydrogen ions in excited state
d) Solvated protons

10. At absolute zero:
a) Only para hydrogen exists
b) Only ortho hydrogen exists
c) Both para and ortho hydrogen exist
d) None of the above
11. Hydrogen peroxide works as:
a) An oxidant only
b) A reductant only
c) An acid only
d) An oxidant, a reductant and an acid
12. Which of the following will not give H_2O_2 on hydrolysis?
a) HClO_4 b) $\text{H}_2\text{S}_2\text{O}_8$ c) H_2SO_5 d) HNO_4 (pernitric acid)
13. The n/p ratio for 1H^1 is:
a) 1 b) 2 c) 3 d) Zero
14. The percentage by weight of hydrogen in H_2O_2 is:
a) 5.88 b) 6.25 c) 25 d) 50
15. Exhausted permutit does not containion.
a) Na^+ b) Mg^{2+} c) Al^{3+} d) Si^{4+}
16. The molarity of pure water at 4°C is:
a) 1 *M* b) 2.5 *M* c) 5 *M* d) 55.5 *M*
17. The gas used in the hydrogenation of oils in presence of nickel as a catalyst is:
a) Methane b) Ethane c) ozone d) Hydrogen
18. The volume of oxygen liberated from 0.68 g of H_2O_2 is
a) 112mL b) 224mL c) 56mL d) 336mL
19. Which hydride is an ionic hydride?
a) NH_3 b) H_2S c) $\text{TiH}_{1.73}$ d) NaH
20. H_2O_2 reduces $\text{K}_3\text{Fe}(\text{CN})_6$ in:
a) Neutral solution b) Acidic solution c) Alkaline solution d) Non-polar medium