



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Physical Science

Class: 8

Date: 25.06.20

Duration: 40 min

Worksheet Solution 47

Full Marks: 15

HYDROGEN

Choose the Correct options:

- Large scale production of hydrogen involve
 - The electrolytic method
 - Bosch method
 - Both**
- Contains impurity copper which acts as a catalyst.
 - Granulated zinc**
 - Sodium
 - Aluminium
- Hydrogen is collected after preparation by
 - Downward displacement of water**
 - Upward displacement of water
 - Upward displacement of air
- Hydrogen is collected using the property
 - It is insoluble in water**
 - It is combustible in air
 - It reacts with both metal and non-metal
- Nitric acid is a _____ agent.
 - reducing
 - oxidising**
 - both
- Thistle funnel is used to pour the acid
 - To allow the glass to catalyse the reaction
 - To control the rate of the reaction
 - To prevent a vigorous or explosive reaction**
- The end of the thistle funnel is dipped in the liquid
 - To prevent air bubbles
 - To ensure pure hydrogen is collected
 - Both**
- Why are the first two jars of prepared hydrogen rejected?
 - They contain air impurities**
 - They contain acid vapours
 - The smell bad
- Why is hydrogen not collected by the upward displacement of air?
 - Mixture of hydrogen and air is explosive**
 - It is combustible in air
 - It reacts with both metal and non-metal
- Name a metal suitable for the laboratory preparation of hydrogen
 - Lead
 - Zinc**
 - Iron

11. Why are active metals like Sodium, calcium and magnesium not used for the laboratory preparation of Hydrogen?
 - a. Too vigorous to control
 - b. Such metals are expensive
 - c. **Both**
12. Why is lead not used in the preparation of hydrogen from an acid?
 - a. **Insoluble sulphates and chlorides stop the reaction from proceeding**
 - b. Forms poisonous gases
 - c. Both
13. Why is iron not used in the laboratory preparation of hydrogen?
 - a. **Impurities present causes foul smelling poisonous gases**
 - b. Not available in pure form
 - c. Both
14. What happens if nitric acid is used in the preparation of hydrogen?
 - a. No reaction takes place
 - b. **Oxides of nitrogen are formed**
 - c. Too vigorous reaction
15. What is the catalyst used in the Bosch method?
 - a. Iron III oxide
 - b. Chromium III oxide
 - c. **Both**