

## Important Reactions : W.S.-26

- 1) What is a chemical reaction?
- 2)a) Give the formula for glucose.  
b) What does the body do with glucose?
- 3) Give the reaction for photosynthesis.
- 4)a) What is smelting?  
b) How do we get iron from the ore  $\text{Fe}_2\text{O}_3$ ?  
c) Name an ore of copper.
- 5)a) What happens in a chemical explosion?  
b) Write down the reaction for a gunpowder explosion.
- 6) During fermentation, yeast will turn glucose into two compounds. Name them.
- 7) Name two substances that are required to make soap.
- 8) Mortar is used to hold bricks together. It takes a long time to become hard. Explain briefly.
- 9) Explain how the simple fire extinguisher works.
- 10) What is a catalyst?

Answers: 1) It is a reaction in which new compounds are formed., 2)a)  $\text{C}_6\text{H}_{12}\text{O}_6$ , b) It is required for respiration. (It is burned for fuel by the body), 3) Sunlight Energy + carbon dioxide gas + water will produce glucose + oxygen. (chlorophyll is necessary for this process), 4)a) It is a process where an ore is processed to get the metal inside., b) The ore is mixed with coal and ignited. Liquid iron falls to the bottom of the mixture. Carbon dioxide gas is released., c) copper carbonate, 5)a) A lot of energy and hot gas is released., b)  $2\text{KNO}_3 + \text{S} + 3\text{C} \rightarrow \text{K}_2\text{S} + 3\text{CO}_2 + \text{N}_2 + \text{heat}$ ., (potassium nitrate + sulfur + carbon yields potassium sulfide + carbon dioxide gas + nitrogen gas + heat), 6) alcohol and

carbon dioxide, 7) A fat (or vegetable oil) and a base. (such as NaOH or lye( $K_2CO_3$ )), 8) Hydrated (slaked) lime (which is not so hard) will lose water over time and absorb carbon dioxide from the air to become very hard calcium carbonate., 9) When sulfuric acid is added to sodium bicarbonate, carbon dioxide is produced which smothers the flame., 10) A catalyst is a substance that can speed up a reaction. It does not combine with the other reactants.