Name.....

Batch.....

CHAPTER- CHEMICAL EQUATIONS AND REACTIONS

M.M.- 30 **60 MINUTES**

1. The electrolytic decomposition of water gives H_2 and O_2 in the ratio of

(a) 1 : 2 by volume
(b) 2 : 1 by volume
(c) 8 : 1 by mass
(d) 1 : 2 by mass

2. In the decomposition of lead (II) nitrate to give lead (II) oxide, nitrogen dioxide and oxygen gas, the coefficient of nitrogen dioxide (in the balanced equation) is
(a) 1
(b) 2
(c) 3
(d) 4

3. Fatty foods become rancid due to the process of
(a) oxidation
(b) corrosion
(c) reduction
(d) hydrogenation

4. We store silver chloride in a dark coloured bottle because it is
(a) a white solid
(b) undergoes redox reaction
(c) To avoid action by sunlight
(d) none of the above

5. Silver article turns black when kept in the open for a few days due to formation of
(a) H_2S
(b) AgS
(c) $AgSO_4$
(d) Ag_2S

6. When crystals of lead nitrate are heated strongly in a dry test tube

(a) crystals immediately melt
(b) a brown residue is left
(c) white fumes appear in the tube
(d) a yellow residue is left

7. Dilute hydrochloric acid is added to granulated zinc taken in a test tube. The following observations are recorded. Point out the correct observation.
(a) The surface of metal becomes shining
(b) The reaction mixture turns milky
(c) Odour of a pungent smelling gas is recorded
(d) A colourless and odourless gas is evolved

8. Explain the process of corrosion and rusting. (2 marks)

9. How is exothermic reaction different from an endothermic reaction?(2 marks)

10. Why are oil and fat containing food items flushed with nitrogen? (2 marks)

11. How will you test for the gas which is liberated when HCL reacts with an active metal? (2 marks)

12. Identify the following type of reactions:- (3 marks)
- $Na_2SO_4 + BaCL_2 = BaSO_4 + 2NaCL$
- $CaCO_3 = CaO + CO_2$
- $Fe + CuSO_4 = FeSO_4 + Cu$

13. Balance the following chemical equations.(3 marks)
$Fe(s) + H_2O(g) = Fe_3O_4 + H_2(g)$
$MnO_2 + HCL = MnCl_2 + Cl_2 + H_2O$
$HNO_3 + Ca(OH)_2 = Ca(NO_3)_2 + H_2O$

14. Distinguish between a displacement and a double displacement reaction by giving suitable example of each. (4 marks)

15. Describe the different methods to prevent corrosion. What happens when the following metals corrode? (5 marks) GIVE RELEVANT REACTIONS

a. silver b. Iron c. copper