

MID TERM EXAMINATION

APRIL/MAY 2018

CLASS X

Marking Scheme – [CHEMISTRY] [THEORY]

Q.NO.	Answers	Marks (with split up)
1.	Those substances whose smell (or odor) changes in acidic or basic media. example...Onion, Vanilla (any one)	½ + ½
2.	i) By adding antioxidants like BHT or BHA to the food containing fats and oil. ii) By packaging fat and oil containing food in Nitrogen gas.	1 + 1
3.	(A) Hydrogen Gas $\text{Zn} + 2\text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$ By bringing a burning splinter near the gas, the gas burns with a pop sound. OR (B) 'A' is CaCO_3 (Calcium Carbonate). The gas evolved is CO_2 . $\text{CaCO}_3 + \text{H}_2\text{SO}_4 \rightarrow \text{CaSO}_4 + \text{H}_2\text{O} + \text{CO}_2$	1+1+1
4.	(A) Presence of light , Used in Photography (B) i) Exothermic ii) Endothermic	1 + 1 ½ + ½
5.	a) To prevent the mixture to be splashed because the reaction is highly exothermic. b) HCl ionizes completely in water and produces large amount of H^+ ions whereas NH_4OH ionizes partially in water producing less amount of OH^- ions.	1 + 2
6.	(A) (i) Brief Procedure; (ii) Observation; The bulb will not glow because glucose and ethanol do not conduct electricity. (iii) Conclusion ; The experiment shows that glucose and ethanol do not ionize in aq. Solutions ,that is, they do not give H^+ ions, so do not conduct electricity. Hence they are not categorized as acids. (B) The reaction between acid and base to form salt and water. $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$	1+1+1 1 + 1
7.	(A) (i) $3\text{H}_2 + \text{N}_2 \rightarrow 2\text{NH}_3$ (ii) $2\text{K} + 2\text{H}_2\text{O} \rightarrow 2\text{KOH} + \text{H}_2$ (iii) $\text{Zn} + 2\text{NaOH} \rightarrow \text{Na}_2\text{ZnO}_2 + \text{H}_2$ (B) Substance oxidized –CO, Substance Reduced- Fe_2O_3 Oxidising Agent – Fe_2O_3 , Reducing Agent- CO (A) Balance the following chemical equations. i) $2\text{Pb}(\text{NO}_3)_2 \xrightarrow{\text{Heat}} 2\text{PbO} + 4\text{NO}_2 + \text{O}_2$ ii) $2\text{Al} + 6\text{HCl} \rightarrow 2\text{AlCl}_3 + 3\text{H}_2$ iii) $\text{MnO}_2 + 4\text{HCl} \rightarrow \text{MnCl}_2 + 2\text{H}_2\text{O} + \text{Cl}_2$ (B) Reaction in which oxidation and reduction takes place simultaneously is called	1+1+1 OR ½ x4=2 3x1=3

	Redox reaction. Substance oxidized – C , Substance Reduced - PbO	1 $\frac{1}{2} \times 2 = 1$
8.	BIO	
9.	BIO	
10.	PHY	
11.	PHY	
12.	(A) Iron nail gets a brown coating of copper. Blue color of copper sulfate changes to green. OR (B) Color of the residue is brown. Tiny droplets of water seen in the test tube./Evolution of gases.(any one)	$1 \times 2 = 2$
13.	Double Displacement Reaction. Name of the ppt. – Barium sulfate	$1 \times 2 = 2$
14.	BIO	
15.	BIO	