CHOITHRAM SCHOOL MANIKBAGH INDORE
CLASS XII SESSION: 2018-19

Subject: Chemistry **Assignment No: I**
Allotment Date: 26/04/18 **Submission Date: 13/06/18**

S.No	QUESTION	MARKS	LEVEL
	OBJECTIVE TYPE		
1.	How does ammonia react with a solution of Cu^{2+}?	1	Knowledge
2.	Arrange the following in the increasing order of the property indicated and assign suitable reason for the order. i) F_2 , Cl_2 , Br_2 , I_2 (bond dissociation enthalpy) ii) HF , HCl , HBr, HI (acid strength)	1	Understanding
3.	An easily liquefiable gas has temporary bleaching capability and is also used as a disinfectant. It acts both as oxidizing as well as reducing agents in reactions and turns lime water milky. Identify the gas and write a reaction for its laboratory preparation.	1	hot
	SHORT ANSWER TYPE I		
4.	Draw the structures for the following: XeO_3 ii) XeF_2 iii) H_3PO_4 iv)ClF_3 v) BrF_5	2	knowledge
5.	Why is Ka_2 less than Ka_1 for H_2SO_4 in water ? Explain.	2	understanding
6.	Which is the strongest oxidizing agent amongst halogens? Give reason for your answer.	2	logic
7.	H_3PO_2 and H_3PO_3 act as good reducing agents while H_3PO_4 does not.	2	Hot
	SHORT ANSWER TYPE II		
8.	Assign reason for the following: i)ClF_3 exists but FCl_3 does not. ii)Ammonia is a good complexing agent. iii)Interhalogen compounds are generally more reactive than halogens.	3	understanding
9.	A translucent white waxy solid (A)on heating in an inert atmosphere is converted into its allotropic form (B). Allotrope (A) on reaction with very dilute aqueous KOH liberates a highly poisonous gas (C) having rotten fish smell . With excess of chlorine(C) forms (D) which hydrolyses to compound (E). Identify (A) to (E).	3	Multi conceptual
10.	Many metals occur in the earth's crust as sulphides. To extract metals, the sulphide ores are first roasted in a reveberatory furnace in excess of air when metal oxide is formed and sulphur di oxide is released. Sulphur di oxide is a major air pollutant. It produces acid rain which damages crop and historical monument made of marble and iron. i) Name three important sulphide ores. ii) What is acid rain? How does it damage the crops, buildings ,structures made up of iron? iii) As a student of chemistry , what steps do you propose to control air pollution?	3	Value based
	LONG ANSWER TYPE		
11.	i)NO_2 dimerizes to form N_2O_4. Why? ii)Chlorine water loses its yellow colour on standing.Why? iii)What would happen on addition of ozone gas to KI solution? Support your answer with an equation. iv)Complete the following reaction a)$HgCl_2 + PH_3 \rightarrow$ b)$CaF_2 + H_2SO_4 \rightarrow$	5	Logic
12.	i)When a moist blue litmus paper is dipped in a solution of hypochlorous acid , it first turns red and then later gets decolourised. How would you justify the above observation. ii) $Na_2S_2O_3$ reacts with Cl_2 and I_2 to give different oxidation products. Write the equation for the reaction and give an explanation of such a behavior.	5	Hot

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