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# INDIAN SCHOOL MUSCAT
# SECOND PERIODIC TEST

## CHEMISTRY

CLASS: XII Sub. Code: 042 Time Allotted: 50mts

16.09.2018 Max. Marks: 20

*GENERAL INSTRUCTIONS:*

## General instructions:

- All questions are compulsory.
- Mark of each question is indicated against it.

1. Fluorine does not form oxyacids but other halogens do. Why? 1

2. What happens when chlorine is passed through hot concentrated solution of a base like NaOH? Write balanced chemical equation. 1

3. Does the hydrolysis of $XeF_6$ lead to a redox reaction? Give reason. 1

4. Write balanced chemical equation for the following: 2
   a) $Zn + HNO_3$ (dil) $\rightarrow$
   b) $I^- + H_2O + O_3 \rightarrow$
5. Draw the structures of the following: 2
   a) $H_2S_2O_7$
   b) $HClO_4$
6. How is ozone estimated quantitatively? 2

7. Explain the molecular shape of the following on the basis of VSEPR theory: 2
   a) $BrF_5$
   b) $XeO_3$
8. Arrange the following in the order of the property indicated for each set: 3
   a) HCl , HF ,HI , HBr (increasing acid strength)
   b) $NH_3$ , $PH_3$ , $AsH_3$, $SbH_3$, $BiH_3$ (decreasing boiling point)
   c) HClO , $HClO_4$ ,$HClO_2$, $HClO_3$ (decreasing oxidizing power)

9. Explain the Ostwald's process for the manufacture of nitric acid. 3

10. How would you account for the following: 3
    a) Penta halides of group 15 are more covalent than the tri halides
    b) $SF_6$ is known but $SH_6$ is not known.
    c) Xenon does not form fluorides such as $XeF_3$ and $XeF_5$.

**End of the Question Paper**