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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:

- a. All questions are compulsory.
- b. Mark for each question is indicated against it.

1. Draw the structure of a noble gas species which is isostructural with BrO_3^- 1
2. Complete and balance the following equation. 1

$$\text{AgNO}_3 + \text{H}_2\text{O} + \text{H}_3\text{PO}_2 \rightarrow$$
3. PH_3 forms bubbles when passed slowly in water, but NH_3 dissolves. Why? 1
4. When concentrated sulphuric acid was added to an unknown salt present in a test tube, a brown gas (A) was evolved. The evolution of gas was intensified when copper turnings were added to this test tube. On cooling, the gas (A) changed into a colourless solid (B). 2
 - a) Identify (A) and (B).
 - b) Why does gas (A) change to solid (B) on cooling?
5. How is ozone estimated quantitatively? 2
6. Write balanced chemical equations for the following. 2
 - a) XeF_2 undergoes hydrolysis
 - b) Reaction of thionyl chloride with white phosphorus
7. Draw the structures of the following, 2
 - a) HOClO_2
 - b) $\text{H}_2\text{S}_2\text{O}_7$
8. Arrange the following in the increasing order of property mentioned; 3
 - a) $\text{NH}_3, \text{PH}_3, \text{AsH}_3, \text{SbH}_3$ (Bond angle)
 - b) $\text{F}_2, \text{Cl}_2, \text{Br}_2, \text{I}_2$ (Bond dissociation enthalpy)
 - c) $\text{H}_2\text{Te}, \text{H}_2\text{S}, \text{H}_2\text{Se}, \text{H}_2\text{O}$ (Acidic character)

9. Account for the following. 3
- a) Nitrous acid is an oxidant as well as reductant.
 - b) Finely powdered iron dissolves in HCl to form FeCl_2 and not FeCl_3 .
 - c) ICl is more reactive than I_2
10. Explain the manufacture of sulphuric acid by Contact process with equations. 3

End of the Question Paper