

PRACTICE TEST

Level 2

CLASS: XII

Unit 7: The p-Block Elements

Full marks: 20

Time: 40 Min

Q.No	Questions	M
1	In the case of nitrogen, all oxidation states from +1 to +4 tend to disproportionate in acid solution. Write the disproportionation reaction of HNO_2 .	1
2	The maximum covalency of nitrogen is _____.	1
3	Phosphorous can form PF_6^- . True/False?	1
4	Name the strongest reducing agent among all the hydrides of group 15.	1
5	Write the sequence of the reactions involved in Ring Test of nitrogen.	2
6	Answer the following- i. Why does PCl_5 in solid state exists as ionic compound in solid state? ii. What happens when PCl_5 is heated?	2
7	i. Elements of Group 16 generally show lower value of first ionization enthalpy compared to the corresponding periods of group 15. Why? ii. Why does NH_3 form hydrogen bond but PH_3 does not? OR i. Why are the elements of Group 18 known as noble gases? ii. Why is helium used in diving apparatus?	2
8	i. H_2S is less acidic than H_2Te . Explain why? ii. H_2O a liquid and H_2S a gas. Explain why? OR i. Explain why inspite of nearly the same electronegativity, nitrogen forms hydrogen bonding while chlorine does not. ii. Why are halogens coloured?	2
9	i. Why does O_3 act as a powerful oxidising agent? ii. Which form of sulphur shows paramagnetic behaviour? Why?	2
10	Explain: i. Why Nitrogen exists as diatomic molecule and phosphorus as P_4 ? ii. Why does nitrogen show catenation properties less than phosphorus? iii. Why is dioxygen a gas but sulphur a solid?	3
11	Write the reaction for what happens when- i. Orthophosphorous acid (or phosphorous acid) is heated. ii. $\text{AgNO}_3 + \text{H}_2\text{O} + \text{H}_3\text{PO}_2 \rightarrow$ iii. H_3PO_3 is heated?	3