

- Q1. Why is Boron Metalloid?
- Q2. Why non-metals generally form An-Ions?
- Q3. Why does Boron not form  $B^{3+}$  ion?
- Q4. Which type of Bonds are formed by Boron and why?
- Q5. Why h bonding (p<sub>h</sub> – p<sub>h</sub>) is not strong for heavier p-block elements?
- Q6. Describe what happens when Boric acid is heated?
- Q7. Write the structure of **diborane** and explain the nature of bonding in it? Give its lab preparation?
- Q8. Why do Boron halides form addition compounds with ammonia and amines?
- Q9. What is the basic structural unit of ortho boric acid? Name type of bond present in them.
- Q10. Why is Boric acid monobasic?
- Q11. What are hydridoborates? How are they prepared?
- Q12. Name two hydridoborates which are good reducing agents.
- Q13. What is Inorganic Benzene and how it is prepared? Why it is called Inorganic Benzene?
- Q14. What happens when Boranes are hydrolysed?
- Q15. What happens when Borax is heated?
- Q16. Give important characteristics of Boron which are not shown by other members of the gp.
- Q17. White fumes appear around the bottle of anhydrous  $AlCl_3$ . Give reason.
- Q18. Boron is unable to form  $BF_6^{3-}$  ion? Explain.
- Q19. What is the hybridization state of Al in  $[Al(H_2O)_6]^{3+}$  ion?
- Q20. What are fullerenes? How are they prepared?
- Q21. Give points of similarities between Boron and silicon & why there is resemblance.