



## SECTION-B

2. Why  $\text{BF}_3$  is not hydrolysed as compared to  $\text{BCl}_3$  and  $\text{BBr}_3$ ?
3. What is diagonal relationship and how does it arise in higher s-block and p-block elements?
4. How is beryllium chloride prepared? Draw the structure of beryllium chloride in the solid state and in the vapour state.
5. Why are alkali metals less dense and less harder than alkaline earth metals? What are the factors that give the relative strength of Lewis acids and bases?
6. How do coordination compounds differ from double salts? Why square planar complexes do not exhibit optical isomerism?

## SECTION-C

7. What is EDTA? How this chelating ligand is capable of complexing with  $\text{Ca}^{+2}$  ion? Draw the structure of complex.
8. How is diborane prepared? Discuss the bonding in this unique molecule. How does diborane react with ammonia?
9. How does relative strength of an acid vary with the oxidation number of the central atom?

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