



DELHI PUBLIC SCHOOL FIROZABAD

(Under the aegis of Delhi Public School Society, East of Kailash, New Delhi)

(A senior secondary school)

Affiliated to C.B.S.E New DELHI



JANUARY WORKSHEET NO. 1

Class- XI

Date- 14/1/2022

Name-

Subject- Chemistry

Roll No.-

Chapter- p-block elements

Answer the following questions:

1. Why does boron trifluoride behave as a Lewis acid?
2. Write reactions to justify amphoteric nature of aluminium
3. What is the state of hybridisation of carbon in (a) CO_3^{2-} (b) diamond (c) graphite?
4. How would you explain the lower atomic radius of Ga as compared to Al?
5. Classify the following oxides as neutral, acidic, basic or amphoteric.

CO , B_2O_3 , SiO_2 , CO_2 , Al_2O_3 , PbO_2

6. What do you understand by (a) Inert pair effect (b) Allotropy and (c) Catenation?
7. Explain the difference in properties of diamond and graphite on the basis of their structures.
8. How does metallic and non-metallic character vary in a group?
9. Why do third-period elements expand their covalence above four?
10. Why do the heavier elements do not form $p\pi-p\pi$ multiple bonds as carbon does?