

Chemistry Worksheets Class 11 on Chapter 11 The p-Block Elements - Set 2

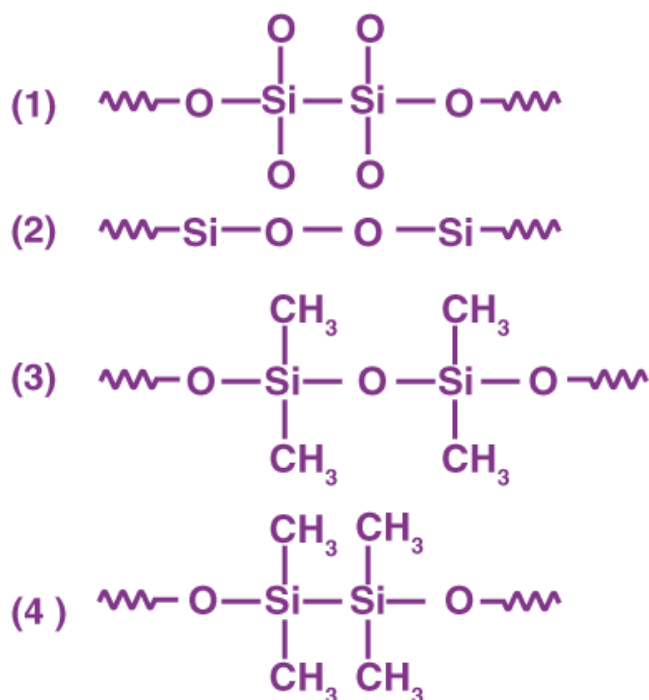
Q-1: Which statement is correct for the carbon family?

- a) Tin mainly occurs as Cassiterite, SnO_2 .
- b) Silicon is the third most abundant element on the Earth's crust.
- c) Only two isotopes of carbon are present, ^{12}C and ^{13}C .
- d) Germanium is more abundant than other members of the carbon family.

Q-2: Which of the following silicates contains discrete tetrahedral units?

- a) Sheet silicates
- b) Ortho silicates
- c) Three-dimensional silicates
- d) Pyrosilicates

Q-3: Hydrolysis of dimethyldichlorosilane, $(\text{CH}_3)_2\text{SiCl}_2$, followed by condensation polymerisation, yields straight chain polymer of



Q-4: Which of the following statements is wrong?

- a) Feldspar are not aluminosilicates.
- b) Beryl is an example of cyclic silicate.
- c) Mg_2SiO_4 is an orthosilicate.
- d) Basic structural unit in silicates SiO_4^{2-} is the tetrahedron.

Q-5: Allotropy is due to

- a) The differences in the number of atoms in the molecules.
- b) Variations in how the atoms are arranged within the crystal molecules.
- b) Differing chemical characteristics.
- d) All of the above

Q-6:

- i) Name a crude form of carbon.
- ii) How is it formed?
- iii) What are its successive stages of transformation?
- iv) Name its superior quality.

Q-7: Why do boron compounds behave as Lewis acids?

Q-8: The ammoniacal cupric chloride solution quickly absorbs carbon monoxide but not carbon dioxide. Explain.

Q-9: Identify the acidic, basic or amphoteric oxide among the following.

B_2O_3 , Al_2O_3 , Ga_2O_3 , In_2O_3 , Tl_2O_3

Q-10: What is the reason for the decrease in oxidising power of the carbon family?

Q-11: Why is the boron family considered the most heterogenous family?

Q-12: a) What is glass?

b) Name the compound used as a catalyst in petrochemical industries.

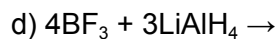
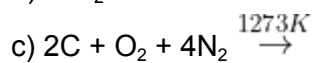
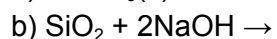
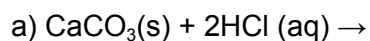
Q-13: Why is there irregularity in metallic character in gallium on moving down the group in the boron family?

Q-14: Give two uses of

- a) Boric acid
- b) Alums

Q-15: Why do the properties of tin differ from germanium despite the same electronegativity?

Q-16: Complete the following reactions.



Q-17:

a) Define silicates.

b) What is the hybridisation of Si in SiO_4^{2-} ?

c) Give two examples of orthosilicates.

Q-18: i) Draw the structure of diborane.

ii) a) How many bonds have a bond length of 119 pm?

b) How many bonds have a bond angle of 120° ?

c) How many atoms are present in the same plane?

d) How many bridging hydrogens are there in it?

Q-19: Give a reason for the following.

(i) Boron has a high melting point.

(ii) Except for boron, other elements of group 13 show a +1 oxidation state.

Q-20: Give the preparation reaction of silicones and their two uses.