

Chapter 5: Chemical Bonds

- How many lone pair electrons are present in ammonia molecule? [All Board-18]
(a) 3 (b) 2 (c) 1 (d) 0
- Double bond have seen — [All Board-18]
i. in Oxygen molecule
ii. in butane molecule
iii. in dichloro methane
Which one is correct?
(a) i (b) iii (c) ii and iii (d) i, ii and iii
- How many lone pair of electrons are there in PCl_3 ? [D.B.-17]
(a) 0 (b) 1 (c) 3 (d) 10
- Which one is an electronic conductor? [D.B.-17]
(a) Graphite (b) Alkali solution (c) Acid solution (d) Salt solution
- Which element shows variable valency? [R.B.-17]
(a) O (b) Na (c) P (d) F
- What is the valency of acetate radical? [R.B.-17]
(a) 1 (b) 2 (c) 3 (d) 4
- Which one is the formulae of lead (II) oxide? [R.B.-17]
(a) PbO (b) PbO_2 (c) Pb_2O (d) Pb_3O_4
- In which anion and cation of compound of the following is equal no. of electron? [R.B.-17]
(a) NaCl (b) CaS (c) K_2O (d) MgCl_2
- Which one does not conduct electricity? [Dj.B.-17]
(a) Aluminium (b) Silver (c) Graphite (d) Diamond
- In which of the following compound each atom gain the electronic configuration of Neon? [Dj.B.-17]
(a) CaO (b) CaBr_2 (c) Na_2O (d) LiF
- How many molecules are present in 1 gm H_2SO_4 ? [C.B.-17]
(a) 6.06×10^{23} (b) 6.02×10^{23} (c) 6.1×10^{21} (d) 6.1×10^{23}
- How many states of matter? [Ctg.B.-17]
(a) 2 (b) 3 (c) 4 (d) 5
- How many lone pair electrons are there in PCl_3 ? [Ctg.B.-17]
(a) 0 (b) 1 (c) 3 (d) 10
- Which compound is soluble in water? [J.B.-17]
(a) CCl_4 (b) SiCl_4 (c) $\text{C}_2\text{H}_5\text{OH}$ (d) SiO_2
- Which one of the following has triple bond? [B.B.-17]
(a) NH_3 (b) BF_3 (c) N_2 (d) I_2
- Which one of the following has Van Dar-Waals force? [D.B.-16]
(a) H_2S (b) NaCl (c) MgCl_2 (d) MgO
- Which element's valency is zero? [D.B.-16]
(a) Na (b) Ni (c) Ne (d) Fe
- Formula of Aluminum Sulphate—[D.B.-16]
(a) AlSO_4 (b) $\text{Al}_2(\text{SO}_4)_3$ (c) $\text{Al}_3(\text{SO}_4)_2$ (d) $\text{Al}(\text{SO}_4)_2$
- How many lone pairs of electrons are there in H_2S ? [R.B.-16]
(a) 0 (b) 1 (c) 2 (d) 4
- Intermolecular force of which one is less? [R.B.-16]
(a) Candle (b) Water (c) Propane (d) Blue vitriol
- Which of the two element gain the electronic configuration of argon to form ion? [Dj.B.-16]
(a) Ca, Cl (b) K, O (c) Sc, Cl (d) S, C
- Which of the following shows variable valency? [Dj.B.-16]
(a) Mg, Ag (b) Fe, Cl (c) P, Al (d) Pb, Sn
- In carbon dioxide molecule, how many electrons shared by each oxygen? [Dj.B.-16]
(a) 2 (b) 4 (c) 6 (d) 8
- Which of the following does not follow octet rule? [Dj.B.-16]
(a) HF (b) CO_2 (c) H_2O (d) BF_3
- How many lone pair electrons are present in H_2O molecule? [C.B., B.B.-16]
(a) 1 (b) 2 (c) 3 (d) 4
- How many atoms are there in one molecule of calcium phosphate? [Ctg.B., B.B.-16]
(a) 10 (b) 12 (c) 13 (d) 15
- Which element will attain the configuration of inert Ar the time of forming bond? [Ctg.B.-16]
(a) Al (b) Br (c) Ca (d) Rb
- What is the maximum number of unpaired electrons are possible at excited state in the valency shell of the element of 16th group and period 3rd in periodic table? [Ctg.B.-16]
(a) 2 (b) 4 (c) 6 (d) 8
- How many nitrate ions are in an aluminium nitrate? [S.B.-16]
(a) 1 (b) 2 (c) 3 (d) 4
- How many bond pair and lone pair electrons are in sulfur dioxide? [S.B.-16]
(a) 1, 2 (b) 2, 3 (c) 3, 4 (d) 4, 5
- During the bond formation by donating electron which one follows dual rule? [S.B.-16]
(a) Hydrogen (b) Boron (c) Lithium (d) Helium
- Total bond pair and lone pair number of electron are equal in which compound? [S.B.-16]
(a) CH_4 (b) NH_3 (c) H_2O (d) HCl

33. How many bond pair electron are there in ammonia molecule? [J.B.-16]

- (a) 1 (b) 2
(c) 3 (d) 4

34. How many molecule of water in alum dust? [B.B.-16]

- (a) 28 (b) 24
(c) 20 (d) 16

35. What is the valency of inert gas? [B.B.-16]

- (a) 0 (b) 1
(c) 2 (d) 3

36. Polar compound is — [R.B.-17]

- i. $H_2O(l)$ ii. $HF(l)$
iii. $CH_3CH_2OH(l)$

Which one is correct?

- (a) i and ii (b) i and iii
(c) ii and iii (d) i, ii and iii

37. During the formation of NaCl compound— [D.B.-16]

- i. Na and Cl both attain electronic configuration of Ne
ii. Electrons are exchanged between Na and Cl
iii. Both Na and Cl follow octet rule

Which one of the following is correct?

- (a) i and ii (b) i and iii
(c) ii and iii (d) i, ii and iii

38. The atomic numbers of the three elements A, B and E are 9, 16 and 20 respectively.

[Here A, D and E are not symbols of any regular element] [Ctg.B.-16]

- i. A and A bond is possible
ii. EA_2 compound is insoluble in water
iii. In H_2D molecule loan pair electron is present

Which one of the following is correct?

- (a) i, ii (b) i, iii
(c) ii, iii (d) i, ii and iii

Answer to the questions No. 39–40: [S.B.-16]

39. Which element has the highest ionization energy in the scenario?

- (a) S (b) Si
(c) Al (d) P

40. Which elements show variable valency?

- (a) P, Al (b) P, S
(c) P, Si (d) Al, Si

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