

Covalent bonding



29. A covalent bond is likely to be formed between two elements which
- Have similar electronegativities
 - Have low ionization energies
 - Have low melting points
 - Form ions with a small charge
30. The bond between two identical non-metal atoms has a pair of electrons
- Unequally shared between the two
 - Transferred fully from one atom to another
 - With identical spins
 - Equally shared between them
31. The valency of phosphorus in H_3PO_4 is
- 2
 - 5
 - 4
 - 1
32. Which of the following substances has covalent bonding
- Germanium
 - Sodium chloride
 - Solid neon
 - Copper
33. The covalency of nitrogen in HNO_3 is
- 0
 - 3
 - 4
 - 5
34. Hydrogen chloride molecule contains a
- Covalent bond
 - Double bond
 - Coordinate bond
 - Electrovalent bond
35. As compared to covalent compounds, electrovalent compounds generally have
- Low melting points and low boiling points
 - Low melting points and high boiling points
 - High melting points and low boiling points
 - High melting points and high boiling points
36. The interatomic distances in H_2 and Cl_2 molecules are 74 and 198 pm respectively. The bond length of HCl is
- 272 pm
 - 136 pm
 - 124 pm
 - 248 pm
37. On analysis, a certain compound was found to contain iodine and oxygen in the ratio of 254gm of iodine and 80gm of oxygen. The atomic mass of iodine is 127 and that of oxygen is 16. Which



of the following is the formula of the compound

- (a) IO (b) I_2O
 (c) I_5O_2 (d) I_2O_5

38. Ionic and covalent bonds are present in

- (a) CCl_4 (b) $CaCl_2$
(c) NH_4Cl (d) H_2O

39. Highest covalent character is found in

- (a) CaF_2 (b) $CaCl_2$
 (c) $CaBr_2$ (d) CaI_2

40. Among the following which property is commonly exhibited by a covalent compound

- (a) High solubility in water
 - (b) High electrical conductivity
 - (c) Low boiling point
 - (d) High melting point

