

ADDITIONAL MULTIPLE CHOICE QUESTIONS

- Elements of group 18 are called:**
(a) Noble metals (b) Noble gases (c) Noble (d) None of these
- Element attaining eight electrons in its outermost shell are called**
(a) Duplet rule (b) octet rule (c) Both "A" and "B" (d) None of these
- The force of attraction which holds the molecule atom together is called**
(a) Ionic bond (b) Covalent bond (c) hydrogen bond (d) Chemical bond
- Every atom tries to attain**
(a) Maximum energy (b) Stable energy (c) Minimum energy (d) Covalent energy
- Which force of attraction is present between positive and negative ions?**
(a) Homolytic (b) Electrostatic (c) Electro elastic (d) Electronic
- A bond formed by the complete transfer of electron from one atom to other is called**
(a) Chemical bond (b) Covalent bond (c) Ionic bond (d) metallic bond
- Hydrogen acquires the electronic configuration like**
(a) Xe (b) Ne (c) He (d) Ar
- In non polar covalent bond the bonded atoms share the electrons**
(a) Not equally (b) Equally (c) Differently (d) Oppositly
- In polar covalent bonds molecules are**
(a) Homo atomic (b) Tri atomic (c) Hetero atomic (d) Mono atomic
- Dipole-dipole interactions are**
(a) Magnetic (b) Electric (c) Neutral (d) Stable
- Energy requires to break forces of one mole liquid HCl molecule is**
(a) 16kJ (b) 15kJ (c) 17kJ (d) 18kJ
- The density of ice at 0°C is**
(a) 0.917 gcm⁻³ (b) 0.719 gcm⁻³ (c) 0.197 gcm⁻³ (d) 0.0917 gcm⁻³
- One form of polymer used industrially as a adhesive**
(a) Epoxy (b) Explosive (c) Synthetic (d) Natural
- Epoxy is a polymer formed by the resin and**
(a) Shiner (b) Softener (c) Hardener (d) Thiner
- Substance have the tendency to gain electrons and anions**
(a) Metals (b) Non-metals (c) Metalloids (d) Halogens
- Which properties are affected by hydrogen bonding**
(a) Physical (b) Chemical (c) Ionic (d) Metallic
- Which scientist had given the idea of octaves in periodic table?**
(a) Mendeleev (b) Al-razi (c) Newland (d) Dobereiner
- Covalent bond involves the**
(a) Donation of electrons (b) Acceptance of electrons
(c) Sharing of electrons (d) Repulsion of electrons
- Triple covalent bond involves how many numbers of electrons?**
(a) Eight (b) Six (c) Four (d) Only three
- Which one of the following is an electron deficient molecule?**
(a) NH₃ (b) BF₃
(c) N₂ (d) O₂
- Which one of the following is the weakest force among the atoms?**
(a) Ionic force (b) Metallic force
(c) Intermolecular force (d) Covalent force
- Which atom after losing one electrons attains electronic configuration of noble gas.**
(a) He (b) Ne

- (c) Ar (d) Na
23. How many electrons are there in the outer most shell of Cl-atom after it gains one electron in its values shell?
(a) 6 (b) 7
(c) 8 (d) 10
24. Which ionic species has same electronic configuration as noble gas Ar.
(a) Na^+ (b) K^+
(c) Cl^- (d) Both (b) and (c)
25. An ionic bond is formed when elements of group 1 react with elements of group:
(a) 12 (b) 14
(c) 18 (d) 17
26. A dative bond is formed between ammonia and borontrifluoride the donar atom is:
(a) Fluorine (b) Boron
(c) Hydrogen (d) Nitrogen
27. Indicate which molecule is non-polar:
(a) NaCl (b) KBr
(c) CO_2 (d) KI
28. Mark the molecule which possess four covalent bonds.
(a) N_2 (b) C_2H_4
(c) CH_4 (d) C_2H_2
29. Which one of molecule is maximum polar:
(a) HCl (b) HF
(c) NaF (d) H_2O
30. Electronegativity difference between hydrogen and chlorine is:
(a) 1.7 (b) 0.8
(c) 1.0 (d) 0.5
31. Indicate which of the following has hydrogen bonding:
(a) C_2H_6 (b) CH_4
(c) NH_3 (d) HCl
32. $\text{Is}^2, 2s^2, 2p^2$ is the electronic configuration of which atom.
(a) Li (b) B
(c) N (d) C
33. Identify the compound which is soluble in water:
(a) C_6H_6 (b) CH_4
(c) C_2H_4 (d) NaCl
34. The bond dissociation energy of H-Cl molecule
(a) 430 kJ/mole (b) 340 kJ/mole
(c) 403 kJ/mole (d) 304 kJ/mole
35. On the pauling scale fluorine has been given an electronegative value of:
(a) 2.5 (b) 3.0
(c) 3.5 (d) 4.0
36. The density of ice at 0°C is:
(a) 0.917g cm^{-3} (b) 1.0g cm^{-3}
(c) 0.719g cm^{-3} (d) 0.17g cm^{-3}
37. Which molecule contains a single covalent bond?
(a) CH_4 (b) C_2H_2 (c) C_2H_4 (d) O_2
38. The difference between electronegativities of hydrogen and fluorine
(a) 1.0 (b) 3.0 (c) 2.0 (d) 1.8
39. The electronegativity of hydrogen atom is
(a) 2.0 (b) 2.2 (c) 3.0 (d) 2.1

40. The energy required to break the intermolecular forces between one mole of liquid hydrogen chloride molecule to convert into gas is
(a) 22kJ (b) 132 kJ (c) 32 kj (d) 17 kJ
41. the energy required to break the chemical bond between hydrogen and chlorine atoms in 1 mole of hydrogen chloride is
(a) 320 kJ (b) 430 kJ (c) 365 kJ (d) 410 kJ
42. The boiling point of water is
(a) 0°C (b) 35°C (c) 100°C (d) 25°C
43. The boiling point of alcohol is
(a) 44°C (b) 19°C (c) 53°C (d) 78°C
44. Epoxy adhesives are stable to heat up to a temperature of
(a) 177°C (b) 225°C (c) 320°C (d) 135°C
45. The density of water at 0°C is
(a) 2.0 g/cm³ (b) 1.0 g/cm³ (c) 0.917 g/cm³ (d) 1.17 g/cm³
46. The boiling point of NaCl is
(a) 318°C (b) 1413°C (c) 1215°C (d) 1510°C
47. Which of the following is an example of covalent compound?
(a) C₆H₁₂O₆ (b) CH₄ (c) H₂SO₄ (d) All of these
48. Every atom has a natural tendency to achieve electrons in its valence shell
(a) 2 or 6 (b) 2 or 8 (c) 2 or 4 (d) 2 or 10
49. The formation of ionic bond between two ions is due to
(a) Hydrogen bonding (b) Electrostatic forces
(c) Metallic forces (d) All of them
50. How many valence shell electrons are there in Na⁺ ion?
(a) 8 (b) 9 (c) 10 (d) 11

ANSWER KEY

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|----|---|----|---|----|---|----|---|----|---|
| 1 | b | 11 | c | 21 | c | 31 | c | 41 | b |
| 2 | b | 12 | a | 22 | c | 32 | d | 42 | c |
| 3 | d | 13 | a | 23 | c | 33 | d | 43 | d |
| 4 | c | 14 | d | 24 | c | 34 | a | 44 | a |
| 5 | b | 15 | d | 25 | d | 35 | d | 45 | c |
| 6 | c | 16 | a | 26 | d | 36 | a | 46 | b |
| 7 | c | 17 | c | 27 | c | 37 | a | 47 | d |
| 8 | b | 18 | c | 28 | c | 38 | d | 48 | b |
| 9 | c | 19 | b | 29 | b | 39 | b | 49 | b |
| 10 | c | 20 | b | 30 | c | 40 | d | 50 | b |