Chemical Bonding:

Q3. The hydrogen molecule is:

A. Mono-atomic
B. Covalent
C. Tri-atomic
D. Acidic

Q8. An example of a molecule containing co-ordinate covalent bond is:

A. NH_3
B. NH_4CL
C. NaCl
D. HF

Q9. The Octet rule is not valid for the molecule:

A. CO_2
B. H_2
C. O_2
D. CO

Q11. Hydrogen bonding is maximum in:

A. Ethyl chloride
B. Ethane
C. Ethanol
D. None of the above

Q12. Total number of electron that takes part in forming bonds in N_2 is:

A. 2
B. 4
C. 6
D. 8

Q13. Which of the following noble gasses do not contain the ns^2np^6 configuration?

A. He
B. Ne
C. A_r
D. Kr

Q14. Two H- atoms joined together by a covalent bond forming hydrogen molecule which have equal:

A. Electron affinity
B. Electro negativity
C. Both A & B
D. None of the above

Q15. The shared pairs of electron in a molecule are called:

A. Lone pairs
B. Bonding pairs
C. Non bonding pairs
D. P i electron pairs

Q17. Which of the following gases has no affinity for additional electron and has high Ionization energy

A. H_2
B. N_2
C. He
D. O_2

Q20. To determine the extent of polar character in a bond by the difference in:

A. Ionization potential
B. Electron affinity
C. Electro negativity
D. Ionic radius

Q21. The distance between the nuclei of two atoms joined by a covalent bond is called:

A. Bond length
B. Bond order
C. Ionic radius
D. Nuclear distance

Q23. Which of the following has maximum bond energy?

A. C- C
B. I - I
C. H- O
D. H - N

Q24. Which group of elements in the periodic table is characterized by un-reactive electronic configuration?

A. First group
B. 2^{nd} group
C. 3^{rd} group
D. Zero group

Q32. Which is the weakest among the following types of bonds?

A. Ionic bond
B. Covalent bond
C. Hydrogen bond
D. Vander wall's forces

Q37. The types of bonding in hydrogen chloride are:

A. Ionic
B. Polar covalent
C. Non polar covalent
D. Co – ordinate covalent

Q38. In diatomic molecule in which atoms have identical electro negativities, sharing of the bonding electron between the two atoms is:

A. Unequal sharing
B. Equal sharing
C. No sharing
D. None of these

Q39. The C – Cl bonds are polar yet the molecule CCl_4 does not have a dipole moment Because:

A. CCl_4 is a non – polar compound
B. The resultant of dipoles is zero
C. The bond angle in CCl_4 are 104^o
D. All of these

Q40. When sodium and chlorine react, energy is:

A. Absorbed and ionic bonds are formed
B. Released and covalent bonds are formed
C. Absorbed and covalent bonds are formed
D. Released and ionic bonds are formed

Q44. Which of the following compound is covalent?

A. H_2
B. KCl
C. M_gO
D. NaCl

Q57. The bond formed when Ammonia molecules add a proton to form ammonium ion Is

A. Covalent
B. Co – ordinate
C. Ionic
D. None

Answer key:

Q.3	**B**	**Q.21**	**A**
Q.8	**B**	**Q.23**	**C**
Q.9	**B**	**Q.24**	**D**
Q.11	**C**	**Q.32**	**D**
Q.12	**C**	**Q.37**	**B**
Q.13	**A**	**Q.38**	**B**
Q.14	**C**	**Q.39**	**B**
Q.15	**B**	**Q.40**	**D**
Q.17	**C**	**Q.44**	**A**
Q.20	**C**	**Q.57**	**B**