Co-ordinate or Dative bonding

Q1. Which species has the maximum number of lone pair of electrons on the central atom?
(a) $[ClO_3]^-$ **(b)** XeF_4 **(c)** SF_4 **(d)** $[I_3]^-$

Q2. A simple example of a coordinate covalent bond is exhibited by
(a) C_2H_2 **(b)** H_2SO_4 **(c)** NH_3 **(d)** HCl

Q3. The bond that exists between NH_3 and BF_3 is called
(a) Electrovalent **(b)** Covalent **(c)** Coordinate **(d)** Hydrogen

Q4. Which of the following does not have a coordinate bond
(a) SO_2 **(b)** HNO_3 **(c)** H_2SO_3 **(d)** HNO_2

Q5. Coordinate covalent compounds are formed by
(a) Transfer of electrons **(b)** Sharing of electrons
(c) Donation of electrons **(d)** None of these process

Q6. In the coordinate valency
(a) Electrons are equally shared by the atoms
(b) Electrons of one atom are shared with two atoms
(c) Hydrogen bond is formed
(d) None of the above

Q7. Which of the following contains a coordinate covalent bond
(a) N_2O_5 **(b)** $BaCl_2$ **(c)** HCl **(d)** H_2O

Q8. A coordinate bond is formed when an atom in a molecule has
(a) Electric charge on it
(b) All its valency electrons shared
(c) A single unshared electron
(d) One or more unshared electron pair

Q9. Which has a coordinate bond
(a) SO_3^{2-} **(b)** CH_4 **(c)** CO_2 **(d)** NH_3

Q10. The compound containing co-ordinate bond is
(a) O_3 **(b)** SO_3 **(c)** H_2SO_4 **(d)** All of these

Q11. The number of dative bonds in sulphuric acid molecules is
(a) 0 **(b)** 1 **(c)** 2 **(d)** 4

Q12. Which of the following compounds has coordinate (dative) bond
(a) CO **(b)** H_2O **(c)** CH_3Cl **(d)** NH_3

Q13. What is the nature of the bond between B and O in $(C_2H_5)_2OBH_3$
(a) Covalent **(b)** Co-ordinate covalent
(c) Ionic bond **(d)** Banana shaped bond

Q14. Sulphuric acid provides a example of
(a) Ionic compound
(b) Non-covalent compound
(c) Covalent and co-ordinate bond
(d) Non-covalent ion

Answer Key:

(1.) d **(2.)** b **(3.)** c **(4.)** d **(5.)** c **(6.)** b **(7.)** a
(8.) d **(9.)** a **(10.)** d **(11.)** c **(12.)** A **(13.)** b **(14.)** c