

Date Planned : __ / __ / __	Daily Tutorial Sheet-3	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	JEE Main (Archive)	Exact Duration : _____

31. Regular use of which of the following fertilizers increases the acidity of soil ? (2007)
 (A) Ammonia sulphate (B) Potassium nitrate
 (C) Urea (D) Superphosphate of lime
32. Which one of the following is the correct statement ? (2008)
 (A) Boric acid is a protonic acid
 (B) Beryllium exhibits coordination number of six
 (C) Chlorides of both beryllium and aluminium have bridged chloride structures in solid phase
 (D) $B_2H_6 \cdot 2NH_3$ is known as 'inorganic benzene'
33. Which of the following reactions of xenon compounds is not feasible ? (2009)
 (A) $XeO_3 + 6HF \rightarrow XeF_6 + 3H_2O$
 (B) $3XeF_4 + 6H_2O \rightarrow 2Xe + XeO_3 + 12HF + 1.5O_2$
 (C) $2XeF_2 + 2H_2O \rightarrow 2Xe + 4HF + O_2$
 (D) $XeF_6 + RbF \rightarrow Rb[XeF_7]$
34. In which of the following arrangements, the sequence is not strictly according to the property written against it ? (2009)
 (A) $CO_2 < SiO_2 < SnO_2 < PbO_2$: increasing oxidising power
 (B) $HF < HCl < HBr < HI$: increasing acid strength
 (C) $NH_3 < PH_3 < AsH_3 < SbH_3$: increasing basic strength
 (D) $B < O < N$: increasing first ionization enthalpy
35. Which of the following statement is wrong ? (2011)
 (A) The stability of hydrides increases from NH_3 to BiH_3 in group 15 of the periodic table
 (B) Nitrogen cannot form $d\pi - p\pi$ bond
 (C) Single N – N bond is weaker than the single P – P bond
 (D) N_2O_4 has two resonance structure
36. Which of the following statements regarding sulphur is incorrect ? (2011)
 (A) S_2 molecule is paramagnetic
 (B) The vapour at $200^\circ C$ consists mostly of S_8 rings
 (C) At $600^\circ C$ the gas mainly consists of S_2 molecules
 (D) The oxidation state of sulphur is never less than +4 in its compounds
37. Boron cannot form which one of the following anions ? (2011)
 (A) BF_6^{3-} (B) BH_4^- (C) $B(OH)_4^-$ (D) BO_2^-
38. The molecule having smallest bond angle is : (2012)
 (A) NCl_3 (B) $AsCl_3$ (C) $SbCl_3$ (D) PCl_3

39. Which of the following is the wrong statement ? (2013)
- (A) Ozone is paramagnetic gas (B) ONCl and ONO^- are not isoelectronic
(C) O_3 molecule is bent (D) Ozone is violet-black in solid state
40. Among the following oxoacids, the correct decreasing order of acid strength is : (2014)
- (A) $\text{HClO}_2 > \text{HClO}_4 > \text{HClO}_3 > \text{HOCl}$ (B) $\text{HOCl} > \text{HClO}_2 > \text{HClO}_3 > \text{HClO}_4$
(C) $\text{HClO}_4 > \text{HOCl} > \text{HClO}_2 > \text{HClO}_3$ (D) $\text{HClO}_4 > \text{HClO}_3 > \text{HClO}_2 > \text{HOCl}$
41. Which one of the following properties is not shown by NO ? (2014)
- (A) It is diamagnetic in gaseous state
(B) It is neutral oxide
(C) It combines with oxygen to form nitrogen dioxide
(D) It's bond order is 2.5
42. The correct statement for the molecule, CsI_3 is : (2014)
- (A) It is a covalent molecule
(B) It contains Cs^+ and I_3^- ions
(C) It contains Cs^{3+} and I^- ions
(D) It contains Cs^+ , I^- and lattice I_2 molecule
43. Which among the following is the most reactive ? (2015)
- (A) I_2 (B) ICl (C) Cl_2 (D) Br_2
44. **Assertion :** Nitrogen and oxygen are the main components in the atmosphere but these do not react to form oxides of nitrogen.
Reason : The reaction between nitrogen and oxygen requires high temperature. (2015)
- (A) The assertion is incorrect, but reason is correct
(B) Both the assertion and reason are incorrect
(C) Both assertion and reason are correct and the reason is the correct explanation for the assertion.
(D) Both assertion and reason are correct, but the reason is not the correct explanation for the assertion.
45. The least number of oxyacids are formed by : (2015)
- (A) nitrogen (B) sulphur (C) fluorine (D) chlorine