Date Planned : __ / __ / __	Daily Tutorial Sheet-4	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	JEE Main (Archive)	Exact Duration :_____

46. Choose the incorrect formula out of the four compounds for an element X given below : **(2015)**

(A) X_2Cl_3 **(B)** X_2O_3 **(C)** $X_2(SO_4)_3$ **(D)** XPO_4

47. Chlorine water on standing loses its colour and forms : **(2015)**

(A) HCl only **(B)** HOCl and $HOCl_2$

(C) HCl and HOCl **(D)** HCl and $HClO_2$

48. Which one has the highest boiling point ? **(2015)**

(A) Kr **(B)** Xe **(C)** He **(D)** Ne

49. The reaction of zinc with dilute and concentrated nitric acid, respectively produces : **(2016)**

(A) N_2O and NO_2 **(B)** NO_2 and NO **(C)** NO and N_2O **(D)** NO_2 and N_2O

50. The pair in which phosphorus atoms have a formal oxidation state of $+3$ is : **(2016)**

(A) orthophosphorous and pyrophosphorous acids

(B) pyrophosphorous and hypophosphoric acids

(C) orthophosphorous and hypophosphoric acids

(D) pyrophosphorous and pyrophosphoric acids

51. The non-metal that does not exhibit positive oxidation state is : **(2016)**

(A) chlorine **(B)** iodine **(C)** fluorine **(D)** oxygen

52. Identify the incorrect statement : **(2016)**

(A) The $S-S-S$ bond angles in the S_8 and S_6 rings are the same

(B) Rhombic and monoclinic sulphur have S_8 molecules

(C) S_2 is paramagnetic like oxygen

(D) S_8 ring has a crown shape

53. The product obtained when chlorine gas reacts with cold and dilute aqueous NaOH are : **(2017)**

(A) Cl^- and ClO^- **(B)** Cl^- and ClO_2^-

(C) ClO^- and ClO_3^- **(D)** ClO_2^- and ClO_3^-

54. The number of $S=O$ and $S-OH$ bonds present in peroxodisulphuric acid and pyrosulphuric acid respectively are : **(2017)**

(A) (4 and 2) and (4 and 2) **(B)** (2 and 4) and (2 and 4)

(C) (4 and 2) and (2 and 4) **(D)** (2 and 2) and (2 and 2)

55. The correct sequence of decreasing number of π-bonds in the structures of H_2SO_3, H_2SO_4 and $H_2S_2O_7$ is : **(2017)**

(A) $H_2SO_3 > H_2SO_4 > H_2S_2O_7$ **(B)** $H_2SO_4 > H_2S_2O_7 > H_2SO_3$

(C) $H_2S_2O_7 > H_2SO_3 > H_2SO_4$ **(D)** $H_2S_2O_7 > H_2SO_4 > H_2SO_3$

56. XeF_6 on partial hydrolysis with water produces a compound 'X'. The same compound 'X' is formed when XeF_6 reacts with silica. The compound 'X' is : **(2017)**

(A) XeO_3 **(B)** XeF_4 **(C)** XeF_2 **(D)** $XeOF_4$

57. The number of P – OH bonds and the oxidation state of phosphorus atom in pyrophosphoric acid ($H_4P_2O_7$) respectively are : **(2017)**

(A) 1 **(B)** 2 **(C)** 3 **(D)** 4

58. The compound that does not produce nitrogen gas by the thermal decomposition is : **(2018)**

(A) $Ba(N_3)_2$ **(B)** $(NH_4)_2Cr_2O_7$ **(C)** NH_4NO_2 **(D)** $(NH_4)_2SO_4$

59. Xenon hexafluoride on partial hydrolysis produces compounds 'X' and 'Y'. Compounds 'X' and 'Y' and the oxidation state of Xe are respectively : **(2018)**

(A) $XeO_2F_2(+6)$ and $XeO_2(+4)$ **(B)** $XeOF_4(+6)$ and $XeO_2F_2(+6)$

(C) $XeOF_4(+6)$ and $XeO_3(+6)$ **(D)** $XeO_2(+4)$ and $XeO_3(+6)$

60. The number of P – O bonds in P_4O_6 is : **(2018)**

(A) 18 **(B)** 12 **(C)** 9 **(D)** 6