

ECAT Chemistry Chapter 14 Group IIIA & IVA Elements Online Test

Sr	Questions	Answers Choice
1	Which of the following is a tetrabasic acid?	A. ORthophosphoric acid B. Hypophosphorus acid C. Metaphosphoric D. Pyrophosphoric acid
2	Basicity of orthophosphoric acid is	A. 2 B. 3 C. 4 D. 5
3	P ₂ O ₅ is heated with water to give	A. Hypophosphorus acid B. Phosphorus acid C. Hypophosphorus acid D. Orthophosphorus acid
4	Sodium hexametaphosphate is known as	A. Calgon B. Permutite C. Natalite D. Nitrolim
5	When ammonia is heated with cupric oxide, a molecule of ammonia will	A. Gain 3 electrons B. Lose 3 electrons C. Gain 2 electrons D. Lose 2 electrons
6	HNO ₂ acts as an/a	A. Acid B. Oxidizing agent C. Reducing agent D. All the three
7	Which of the following compounds is explosive in nature?	A. Phosphorus trichloride B. Nitrogen trichloride C. Hyponitrous acid D. Nitrosyl chloride
8	What causes nitrogen to be chemically inert?	A. Multiple bond formation in the molecule B. Absence of bond distance C. Short internuclear distance D. High bond energy
9	White phosphorus is	A. A mono atomic gas B. P ₄ , a tetrahedral solid C. P ₈ , a crown D. A linear diatomic molecule
10	Which of the following has highest dipole moment?	A. NH ₃ B. PH ₃ C. AsH ₃ D. SbH ₃
11	Orthophosphoric acid is	A. Monobasic B. Dibasic C. Tribasic D. Tetrabasic
12	Which oxide of nitrogen is obtained on heating ammonium nitrate at 250° C?	A. Nitric oxide B. Nitrous oxide C. Nitrogen dioxide D. Dinitrogen tetraoxide
13	The oxyacids of phosphorus in which phosphorus has the lowest oxidation state is	A. Hypophosphorus acid B. Orthophosphorus acid C. Pyrophosphorus acid D. Metaphosphorus acid
14	The most acidic of the following compounds is	A. P ₂ O ₃ B. Sb ₂ O ₃ C. B ₂ O ₃ D. As ₂ O ₃
15	Which of the following phosphorus is most reactive?	A. Red phosphorus B. White phosphorus C. Scarlet phosphorus D. Black phosphorus

D. Violet phosphorous

16	Which element from group 15 gives most basic compound with hydrogen?	A. Nitrogen B. Bismuth C. Arsenic D. Phosphorus
17	Group VA of the periodic table consists of the elements N, P, As, Sb and Bi, On passing from N to Bi, the oxides of the elements of general formula M_2O_3 become	A. Stronger reducing agents B. More ionic C. More basic D. More volatile
18	The structure of white phosphorus is	A. Square planar B. Pyramidal C. Tetrahedral D. Trigonal planar
19	Which one of the following pentafluorides cannot be formed?	A. PF_5 B. AsF_5 C. SbF_5 D. BiF_5
20	Which of the following elements is most metallic?	A. P B. As C. Sb D. Bi
21	Which of the following fluorides does not exist?	A. NF_5 B. PF_5 C. AsF_5 D. SbF_5
22	Phosphorus pentoxide finds use as	A. An oxidizing agent B. A reducing agent C. A bleaching agent D. A dehydrating agent
23	Red P can be obtained from white P by	A. Heating it with a catalyst in an inert atmosphere B. Distilling it in an inert atmosphere C. Dissolving it in CS_2 and crystallizing D. Melting it and pouring the liquid into water
24	White P when boiled with strong solution of caustic soda produces	A. Phosphine B. Phosphic acid C. Phosphorous acid D. None
25	Phosphine is not obtained by the reaction when	A. White P is heated with NaOH B. Red P is heated with NaOH C. CaP_2 reacts with water D. PH_4I is boiled with water
26	Each of the following is true of white and red phosphorus except that they	A. Are both soluble in CS_2 B. Can be oxidized by heating in air C. Consist of the same kind of atoms D. Can be converted into one another
27	Which one of the following compounds does not exist?	A. NCl_5 B. AsF_5 C. $SbCl_5$ D. PF_5
28	$BiCl_3$ on hydrolysis forms a white precipitate of	A. Bismuthic acid B. Bismuth oxychloride C. Bismuth pentachloride D. Bismuth hydroxide
29	Phosphide ion has the electronic structure similar to that of	A. Nitride ion B. Fluoride ion C. Sodium ion D. Chloride ion
30	Which one of the following elements occurs free in nature?	A. N B. P C. As D. Sb