CHAPTER 4

GROUP VA AND GROUP VIA ELEMENTS

MULTIPLE CHOICE QUESTIONS

1. In group V-A element the most electronegative element is:

(a) Sb **(b)** N

(c) P **(d)** As

2. Which one the following elements occur free in nature:

(a) Sb **(b)** As

(c) N **(d)** P

3. Which one of the following compounds is not known:

(a) $SbCl_3$ **(b)** NCl_3

(c) NI_3 **(d)** NCl_5

4. Which is a laughing gas:

(a) N_2O_5 **(b)** N_2O

(c) NO **(d)** N_2O_4

5. Oxidation of NO in air produces:

(a) N_2O **(b)** N_2O_4

(c) N_2O_3 **(d)** N_2O_5

6. Yellow colour of Nitiric Acid is due to the presence of:

(a) NO_2 **(b)** NO

(c) N_2O **(d)** N_2O_4

7. Gold dissolve in Aqua regia to give:

(a) $AuCl_2$ **(b)** AuCl

(c) $AuCl_3$ **(d)** None

8. When red phosphorous is heated with HNO_3 it forms:

(a) H_3PO_4 **(b)** HPO_2

(c) H_2PO_3 **(d)** H_3PO_3

9. Which of the following is used at the tips of match stick:

(a) $K_2Cr_2O_7$ + S + White P **(b)** $K_2Cr_2O_7$ + K + S

(c) S and K **(d)** Sb_2S_3

10. What is the number of electrons present in the valence shell of P in PCl_3:

(a) 4 **(b)** 6

(c) 8 **(d)** 2

11. Phosphorous shows oxidation state (+3) in which of the following:

(a) $H_4P_2O_7$ **(b)** PO_4^{-3}

(c) H_3PO_3 **(d)** H_3PO_4

12. Which element is the most abundant in the earth's crust:

(a) Fe **(b)** O

(c) Si **(d)** C

13. Which catalyst is used in contact process:

(a) Fe_2O_3 **(b)** V_2O_5

(c) SO_3 **(d)** Ag_2O

14. The brown gas formed when metal reduces HNO_3 is:

(a) N_2O_5 **(b)** N_2O_3

(c) NO_2 **(d)** NO

15. Which of the following specie has the maximum number of unpaired electrons:

(a) O_2^{-1} **(b)** O_2^{+2}

(c) O_2^{-2} **(d)** O_2

16. The contact process for the manufacturing of H_2SO_4 was developed by:

(a) Jabir-Bin-Hayan **(b)** Knietsch

(c) Al-Khwarzmi **(d)** Mendleeve

17. In which compound of nitrogen, the oxidation state of N is (+1):

(a) N_2O **(b)** NO

(c) NO_2 **(d)** N_2O_4

18. $FeSO_4$ forms brown ring with:

(a) N_2O_4 **(b)** NO

(c) NO_2 **(d)** None of these

19. "Lead" in lead pencil is:

(a) Bone black **(b)** Graphite and clay

(c) Lead oxide **(d)** Lead peroxide

20. Formula of Gibbsite is:

(a) Al_2O_3 **(b)** $Al_2O_3 . H_2O$

(c) $Al_2O_3 . 2H_2O$ **(d)** $Al_2O_3 . 3H_2O$

answers

1.	(b)	**2.**	(c)	**3.**	(d)	**4.**	(b)	**5.**	(b)
6.	(a)	**7.**	(c)	**8.**	(a)	**9.**	(a)	**10.**	(c)
11.	(c)	**12.**	(b)	**13.**	(b)	**14.**	(c)	**15.**	(d)
16.	(b)	**17.**	(a)	**18.**	(b)	**19.**	(b)	**20.**	(d)