DPP
DAILY PRACTICE PROBLEMS

CLASS : XIth
DATE :

Solutio

SUBJECT : CHEMISTRY
DPP No. : 3

Topic :- THE P-BLOCK ELEMENTS-2

1 **(d)**
The first ionisation energy of xenon is quite close to that of oxygen and the molecular diameter of xenon and oxygen are almost identical.
Based on the above facts it is suggested that since oxygen combines with PtF_6, so xenon should also form similar compounds with PtF_6.

2 **(d)**
The bond pair gets farther apart from central atom due to increasing bond length and thus, lone pair on central atom causes more contraction in bond angles.

3 **(d)**
CO is neutral.

4 **(d)**
$Ca_3(PO_4)_2 + 3SiO_2 \longrightarrow 3CaSiO_3 + P_2O_5$
$2P_2O_5 + 10C \longrightarrow P_4 + 10CO$

5 **(b)**
NO_2 is a brown coloured gas

6 **(c)**
$KI + I_2 \rightarrow KI_3$

7 **(d)**
SO_2, H_2O ans O_3 all of these act as bleaching agent.

8 **(a)**
Allotropes have different crystalline nature.

9 **(a)**
P exists as P_4, Sb exists as Sb_4.

10 **(a)**
He was detected first in solar atmosphere.

11 **(b)**
The electrolyte used in battery is 38% H_2SO_4.

12 **(b)**
Cl_2 is used in preparation of DDT-an insecticide.

13 **(a)**
Due to H-bonding, HF exists in dimeric (H_2F_2) liquid state.

14 **(b)**
Halon-1301 is CF_3Br. The first figure 1 represents no. of C atoms, the second figure represents no. of F atoms, the third figure 0 represents the no. of Cl atoms and last figure 1 represents the Br atom

15 **(a)**
It is a test for proteins.

16 **(a)**
Both XeF_2 and IF_2^- are linear species but the central atoms Xe and I undergo sp^3d hybridisation with all the three equatorial positions occupied by lone pairs of electrons

17 **(d)**

Haber process —NH_3, birkeland –eyde process —HNO_3, solvay process — Na_2CO_3.

18 **(d)**

In rest all molecules the central non-metal atom possesses lone pair of electron which gives rise to distorted geometry.

19 **(d)**

$2KClO_3 + I_2 \longrightarrow 2KIO_3 + Cl_2$

20 **(b)**

In VIA gp, sulphur possesses the maximum tendency for catenation. The catenation order : C > Si ≈ S > P > N > O

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	D	D	D	D	B	C	D	A	A	C
Q.	11	12	13	14	15	16	17	18	19	20
A.	B	B	A	B	A	A	D	D	D	B