

DPP

DAILY PRACTICE PROBLEMS

CLASS : XIth

DATE :

Solutio

SUBJECT : CHEMISTRY

DPP No. : 1

Topic :- THE P-BLOCK ELEMENTS-2

- 1 (c)
N, P are non-metals, As, Sb are metalloids or semimetals, Bi is metal in gp. 15
- 2 (d)
HF is the weakest acid.
- 3 (c)
Follow contact process for H₂SO₄.
- 4 (d)
Metallic character increases down the gp.
- 5 (c)
 $10\text{HNO}_3 + \text{I}_2 \rightarrow 2\text{HIO}_3 + 10\text{NO}_2 + 4\text{H}_2\text{O}$
- 6 (b)
Noble gases have completely filled electronic configuration of outermost shell and thus, have no scope for addition of an electron in them.
- 7 (a)
O₃ is antibacterial in nature and thus, used as sterilizing agent .
Because in KMnO₄, oxidation state of Mn is +7. Hence, it is the highest oxidation state of Mn, so KMnO₄ is not oxidized by ozone.
- 8 (b)
Welding of Mg is done in the atmosphere of He due to its inert and non-inflammable nature
- 9 (a)
Rn is radioactive.
- 10 (c)

$$2\text{KI} + \text{H}_2\text{O} + \text{O}_3 \longrightarrow 2\text{KOH} + \text{O}_2 + \text{I}_2$$

(a) oxidised

$$2\text{FeSO}_4 + \text{H}_2\text{SO}_4 + \text{O}_3 \longrightarrow \text{Fe}_2(\text{SO}_4)_3 + \text{H}_2\text{O} + \text{O}_2$$

(b) oxidised

(c) $\text{KMnO}_4 + \text{O}_3 \rightarrow \text{no reaction}$

(d)

$$2\text{K}_2\text{MnO}_4 + \text{H}_2\text{SO}_4 + \text{O}_3 \longrightarrow 2\text{KOH} + 2\text{KMnO}_4$$

oxidised

$$+ \text{K}_2\text{SO}_4 + \text{H}_2\text{O} + \text{O}_2$$

- 12 (a) Fluorine and chlorine are more electronegative than sulphur, so they can displace it from its salt.
- 13 (c) It is a reason for the given fact.
- 14 (d) Al becomes passive in HNO_3 .
- 15 (a) It reacts with rest of all reagents.
- 16 (a) Br has the configuration.
 $1s^2, 2s^2 2p^6, 3s^2 3p^6 3d^{10}, 4s^2 4p^5$
- 17 (a) Dipole moment of group 15 hydrides decreases down the group.
- 18 (b) $2\text{CaO} + 2\text{Cl}_2 \rightarrow \text{CaCl}_2 + \text{Ca}(\text{ClO})_2$
- 19 (d) Oxides of nitrogen are acidic and are dissolved in KOH (alkali).
- 20 (b) Compounds of Xe, Kr and Rn are known.

ANSWER-KEY

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