DPP
DAILY PRACTICE PROBLEMS

CLASS : XIth
DATE :

Solutio

SUBJECT : CHEMISTRY
DPP No. : 2

Topic :- THE D-AND F-BLOCK ELEMENTS

1 **(d)**
All are facts about Hg.

2 **(a)**
The most abundant transition metal is Fe.

3 **(a)**
All those inner-transition elements having +2 oxidation state, changes to +3, and act as reducing agents. While those having +4 tend to change to +3 and act as oxidizing agents. Therefore, Np^{4+} acts as an oxidizing agent

4 **(a)**
Oxide of Mn in its intermediate oxidation state *i.e.*, +4 is MnO_2. This is amphoteric in character.

5 **(c)**
Silver nitrate decomposes to silve nitrite on heating above its melting point (212°C).
$2AgNO_3 \xrightarrow{>212°C} 2AgNO_2 + O_2$
On heating above 450°C (red hot), silver nitrate decomposes to metallic silver, oxide of nitrogen and oxygen.
$2AgNO_3 \xrightarrow{>450°C} 2Ag + 2NO_2 + O_2$

6 **(a)**
Cu^{2+} has one unpaired electron.

7 **(d)**
$ZnSO_4$ forms soluble zincates.

8 **(d)**
Thermite is $Fe_2O_3 + Al$ used for welding.

9 **(a)**
Cu_2O is called ruby copper.

10 **(c)**
Np and Pu in NpO_3^+ and PuO_3^+ oxocations show +7 oxidation state which are not so stable

11 **(a)**
Ammonia soda process is for manufacture of Na_2CO_3.

12 **(a)**
Steel is the most important commercial variety of iron having percentage of carbon $0.25 - 2$ (between cast iron wrought iron).

13 **(c)**
$_{28}Ni^{2+}$ has two unpaired electrons, $_{22}Ti^{3+}$, has one unpaired electron.

15 **(a)**
Ionization energy increases along the period and therefore, they have lesser values than p-block and more value of IE than s-block elements.

17 **(a)**
Cu, Ag, Au group of element are called coinage metals as these are used in minting coins.

18 **(a)**
Cadmipone is $CdS + BaSO_4$.

19 **(c)**

Correct order of melting points is

$\mathrm{Mn}(1246^\circ\,\mathrm{C}) < Ti(1668^\circ\,\mathrm{C}) < V \approx Cr(1907^\circ\,\mathrm{C})$

20 **(d)**

Actual composition of chromite ore($FeCr_2O_4$) is $FeO.Cr_2O_3$. In FeO, the oxidation state of Fe is $+2$ while in Cr_2O_3, the oxidation state of Cr is $+3$.

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