

NEET CHEMISTRY

Topic: D & F block element

- Q.1** Mercury is transported in the container's made up of -
(1) Al (2) Fe
(3) Ag (4) Pb
- Q.2** Silver ornaments get tarnished in air due to the reaction of Ag with -
(1) O₂ (2) N₂
(3) H₂S (4) H₂O
- Q.3** Pick out the incorrect statement for the transition metals -
(1) Cu⁺ (d¹⁰) is a transition metal ion
(2) Transition metal ions are coloured
(3) 5d transition series placed in 5th period
(4) Cr⁺⁶ is more oxidising than Cr⁺³
- Q.4** Percentage of gold in 18 carats gold is -
(1) 18 (2) 75
(3) 83.6 (4) 100
- Q.5** Galvanised iron -
(1) Is an alloy of iron with galium
(2) Is iron used in a galvanometer
(3) Is iron coated with zinc
(4) Is an alloy of iron and zinc
- Q.6** Which of the following statement is not correct -
(1) Fe, Ni, Co form interstitial compound
(2) CuSO₄ + Ca(OH)₂ is called Bordeaux mixture
(3) Verdigris is basic copper acetate [Cu(COOCH₃)₂·Cu(OH)₂]
(4) 24 carat gold is an alloy of Au and Cu
- Q.7** Pick out the correct order -
(1) Elect. Conductivity Ag < Au < Al
(2) Density Hg < Au < Os
(3) Melting point Cr > Mo > W
(4) Atomic size Sc < Ti < V
- Q.8** By which of the following ion, a transitional metal can brought in to its highest oxidation state -
(1) F⁻ (2) Cl⁻
(3) Br⁻ (4) I⁻
- Q.9** Which of the following sets of elements exhibits decreasing order of atomic radii -
(a) Sc, Y, La (b) Ti, V, Cr
(c) Ni, Cu, Zn (d) K, Ca, Sc
Correct answer is -
(1) Only b (2) b and c
(3) b and d (4) All

- Q.10** Which of the following set of metals can form alloy -
(1) Cu – Au (2) Li – Na
(3) Fe – Hg (4) All
- Q.11** The elements from thorium (At. No. 90) to lawrencium (At. No. 103) in which 5f energy levels are filled up are called -
(1) Lanthanides (2) rare earths
(3) actinides (4) transuranics
- Q.12** Select the element in the following which does not show + 4 oxidation state -
(1) Ti (2) Zr
(3) La (4) Pt
- Q.13** Cerium can show the oxidation state of +4 because -
(1) It resemble alkali metals
(2) it has very low value of I.E.
(3) of its tendency to attain noble gas configuration of xenon
(4) of its tendency to attain 4f⁷ configuration
- Q.14** The elements from cerium (At. No. 58) to lutetium (At. No. 71) in which 4f energy levels are filled up are called -
(1) lanthanides (2) rare earths
(3) lanthanones (4) all the above
- Q.15** The actinides showing +7 oxidation state are -
(1) U, Np (2) Pu, Am
(3) Np, Pu (4) None of these
- Q.16** In aqueous solution Eu⁺² acts as –
(1) an oxidising agent
(2) reducing agent
(3) can act as redox agent
(4) None of them
- Q.17** The maximum oxidation state shown by actinides is -
(1) +6 (2) +7
(3) +5 (4) +4
- Q.18** The outer electronic configuration of gadolinium (At. No. 64) is -
(1) 4f⁷ 5d¹ 6s² (2) 4f⁸ 5d⁰ 6s²
(3) 4f⁸ 5d¹ 6s¹ (4) 4f⁷ 5d⁰ 6s²
- Q.19** Name the three lanthanides which show + 2 oxidation state also -
(1) Sm, Tb, Gd (2) Sm, Eu, Yb
(3) La, Gd, Lu (4) Yb, Pm, Sm
- Q.20** The chemist who has helped in the discovery of the maximum number of transuranic elements in the last 2 decades is -
(1) Sir Robert Robinson
(2) Sir J.J. Thomson
(3) Prof. G.T. Seaberg
(4) Sir C.N. Hinshelwood
- Q.21** The number of water molecule in Mohr's salt -
(1) 7 (2) 5
(3) 6 (4) 8
- Q.22** Which metal is present in brass, bronze and german silver -
(1) Mg (2) Al
(3) Cu (4) Zn
- Q.23** Which of the following metal react readily with water -
(1) Copper (2) Nickel
(3) Sodium (4) Silver

- Q.24** Amongst TiF_6^{2-} , CoF_6^{-3} , Cu_2Cl_2 and NiCl_4^{-2} colourless compound is -
 (1) Cu_2Cl_2 & NiCl_4^{-2} (2) TiF_6^{-3} and CoF_6^{-3}
 (3) CoF_6^{-3} and NiCl_4^{-2} (4) TiF_6^{-2} and Cu_2Cl_2
- Q.25** General formula of metal carbonyl is $\text{M}(\text{CO})_x$ (M = metal, x = 4). Metal is bonded with -
 (1) Oxygen (2) Carbon
 (3) both (4) Triple bond of CO
- Q.26** Geometrical isomer of $[\text{Pt}(\text{NH}_3)_2\text{Cl}_2]$ are -
 (1) 2 (2) 1
 (3) 4 (4) 3
- Q.27** Mercury alone is liquid metal at 0°C due to -
 (1) Weak metallic attraction
 (2) High IP
 (3) High vapour pressure
 (4) 1 & 2 both
- Q.28** Nessler's reagent is used in the test of -
 (1) NH_4Cl (2) NH_3
 (3) NH_4^+ (4) All of these
- Q.29** Which of the following molecule or ions is a bidentate ligand ?
 (1) $\text{C}_2\text{O}_4^{2-}$ (2) Br_2^+
 (3) CH_3NH_2 (4) $\text{CH}_3 - \text{C} \equiv \text{N}$
- Q.30** Which of the following complex has square planar structure ?
 (1) $[\text{Ni}(\text{CN})_4]^{2-}$ (2) $\text{Ni}(\text{CO})_4$
 (3) $[\text{Zn}(\text{NH}_3)_4]^{+2}$ (4) $[\text{NiCl}_4]^{2-}$

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	2	3	3	3	3	4	2	1	3	1
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	3	3	3	4	3	2	2	1	2	3
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	3	3	3	4	2	1	4	4	1	1