

Model Question Paper
d- Block Elements - Part II

12th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use Blue pen only.

Time : 01:00:00 Hrs

Total Marks : 60

5 x 1 = 5

Section-A

- 1) d-block elements form coloured ions because
(a) They absorb some energy for d-s transition (b) They absorb some energy for p-d transition (c) They absorb some energy for d-d transition
(d) They do not absorb any energy
- 2) The correct electronic configuration of copper atom is
(a) $3d^{10}4s^1$ (b) $3d^{10}4s^2$ (c) $3d^94s^2$ (d) $3d^54s^24p^4$
- 3) Copper is extracted from
(a) cuprite (b) copper glance (c) malachite (d) copper pyrites
- 4) Silver salt used in photography is
(a) AgCl (b) $AgNO_3$ (c) AgF (d) AgBr
- 5) Sodiumthiosulphate is used in photography because of its
(a) Oxidizing behaviour (b) Reducing behaviour (c) Complexing behaviour (d) Photochemical behaviour

Section-B

- 6) Why are Zn^{2+} salts colourless while Ni^{2+} salts are coloured?
- 7) $[Ti(H_2O)_6]^{3+}$ is coloured while $[Sc(H_2O)_6]^{3+}$ is colourless. Explain.
- 8) A substance is found to have a magnetic moment of 3.9 BM. How many unpaired electrons does it contain?
- 9) Explain why the melting and boiling points of Zn, Cd, Hg are low?

4 x 3 = 12

Section-C

- 10) How will you get copper from matte by bessemer process ?
- 11) How will get chromium from chromite ore ?
- 12) Explain the oxidising of potassium dichromate ?
- 13) How is Cr_2O_3 reduced to chromium by aluminothermic process?

4 x 5 = 20

Section-D

- 14) a) Explain why Mn^{2+} is more stable than Mn^{3+} ?
b) Write two alloys of copper and their uses.
- 15) a) Write short notes on aluminothermic process?
b) Name the first and last element in the second transition series.

2 x 10 = 20
