

Model Question Paper
d- Block Elements - Part I

12th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use Blue pen only.

III. Question No 15 is compulsory

Time : 01:00:00 Hrs

Total Marks : 50

5 x 1 = 5

Section-A

- 1) The general electronic configuration of d-block elements is
(a) $(n - 1) d^{1-10} ns^{0-2}$ (b) $(n - 1) d^{1-5} ns^2$ (c) $(n - 1) d^0 ns^1$ (d) None of these
- 2) Formation of coloured ions is possible when compounds contains
(a) paired electrons (b) unpaired electrons (c) lone pairs of electrons (d) none of the above
- 3) Paramagnetism is common in
(a) p-block elements (b) d-block elements (c) s-block elements (d) f-block elements
- 4) The colour of $Ti(H_2O)_6^{3+}$ ion is due
(a) d-d transition (b) Presence of water molecules (c) Inter atomic transfer of electrons (d) None of the above
- 5) The outer electronic configuration of chromium is
(a) $3d^6 4s^0$ (b) $3d^5 4s^1$ (c) $3d^4 4s^2$ (d) $3d^3 4s^2 4p^1$

Section-B

5 x 3 = 15

- 6) What are "d" - block elements?
- 7) How d-block elements are classified?
- 8) Explain why d-block elements exhibit variable oxidation states.
- 9) Why do transition elements form complex?
- 10) Why does Mn(II) show maximum paramagnetic character among the bivalent ions of the first transition series?

Section-C

5 x 5 = 25

- 11) Explain briefly the extraction of copper from its chief ore.
- 12) Name the ores of gold. Explain how it is extracted from its alluvial gavel.
- 13) List the ores of silver. How silver is extracted from Argentite?
- 14) Briefly explain the extraction of zinc from zinc blende.
- 15) a) Explain how dichromate is extracted from its chromite ore. Write the balanced chemical equation for the reaction between an acidified solution of $K_2Cr_2O_7$ and KI

(OR)
- b) Explain the extraction of silver from its chief ore.
