ATOMIC ENERGY CENTRAL SCHOOL-3, TARAPUR

MODULE-1

UNIT: d and f- block elements

Chapter: d-block elements

Work –sheet

Answer the following questions :

1. Define transition elements.
2. Why Zn, Cd and Hg are not considered as transition metals?
3. Why the enthalpies of atomization of transition elements are high?
4. Transition elements show variety of oxidation states. Explain.
5. Which of the 3*d* series of the transition metals exhibits the largest number of oxidation states and why?
6. Why the second ionization enthalpy of chromium is much more than manganese?
7. Why is Cr^{2+} reducing and Mn^{3+} oxidising when both have d^4 configuration?
8. Why are Mn^{2+} compounds more stable than Fe^{2+} towards oxidation to their +3 state?
9. Name the oxometal anions of the first series of the transition metals in which the metal exhibits the oxidation state equal to its group number.
10. Why Cu, Cr, Ni are called as transition elements?

Explain giving reasons:

11. Transition elements are metals.
12. Transition metals and many of their compounds show paramagnetic behavior.
13. Transition elements can form complex compounds.
14. The transition metals generally form coloured compounds.
15. Transition metals and their many compounds act as good catalyst.

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