

## Chemistry - 12th Class Chemistry Chapter 6 Short Questions Preparation

Q1. Define coordination number.

**Ans 1:** The number of lone pair of electrons provided by the ligand to the central metal atom or ion is called the coordination number of the central metal atom or ion.

Q2. What are the typical and non typical transition elements?

**Ans 1:** In order to maintain a rational classification, the elements of group IIB and group IIIB are referred to as non-typical transition elements and the elements in the remaining transition series are called typical transition elements.

Q3. Define paramagnetic? Which two transition metal ions have strongest paramagnetic behaviour.

**Ans 1:** The substance which are weakly attracted by a strong magnetic field are called paramagnetic. For example  $\text{Fe}^{2+}$  and  $\text{Mn}^{3+}$ .

Q4. What is medium carbon steel. Also write its uses.

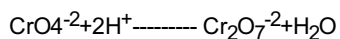
**Ans 1:** Medium carbon steel contains 0.2-0.7% Carbon. It is harder than mild steel, it is also malleable and ductile. It is used in making rails, axles, castings.

Q5. Define Corrosion?

**Ans 1:** Any process of chemical decay of metal is due to the action of surrounding medium is called corrosion.

Q6. How chromate ions are converted into dichromate ions?

**Ans 1:** Chromate and dichromate ions exist in equilibrium as :



On adding the equilibrium will shift towards right and chromate ions will be converted into dichromate ions.

Q7. Write two uses of  $\text{K}_2\text{Cr}_2\text{O}_7$ .

**Ans 1:**

1.  $\text{K}_2\text{Cr}_2\text{O}_7$  finds extensive use in dyeing.
2. It is used in leather industries for chrome tanning.

Q8. Give two use of  $\text{KMnO}_4$ .

**Ans 1:**

1. It is used as an oxidizing agent.
2. It is used as disinfectant and germicide.
3. It is used in manufacturing of many organic compounds.

Q9. Give reason that M.P and B.P show maximum value of the middle of 1st transition series.

**Ans 1:** M.P and B.P show maximum of the middle of 1st transition series and then decrease to a minimum level at the end of the series, This trend in M.P correlates well with the strength of binding force.

Q10. What is meant by Coordination sphere ?

**Ans 1:** The central metal atom or ion along with ligands is called the coordination sphere, It is usually placed in square brackets, It may be anionic cationic or neutral.