Important 2 Mark questions for TN Class 12 Chemistry

Chapter 1: Metallurgy

1. Differentiate between minerals and ores?
2. Write a note on Hydraulic wash
3. Write a note on Froth Flotation
4. Which type of ore can be separated using froth flotation method? Give examples
5. Describe Mond's process.
6. Define i) Gangue ii) Slag
7. What are the limitations of the Ellingham diagram?
8. Explain acid leaching with an example.
9. Write the applications of copper.
10. Write short notes on Auto reduction.
11. Describe the formation of copper matte.
12. Mention the various steps involved in the extraction of pure metals from their ores.

Chapter 2: p-Block Elements - I

1. What are the factors responsible for the anomalous behaviour of the first group elements?
2. Write a note on Fisher-Tropsch synthesis.
3. What are the uses of Boron?
4. Write the ethyl borate test.
5. Mention the uses of silicone.
6. List the uses of borax.
7. Explain the McAfee process.
8. Write the uses of Borax.
9. Mention the uses of Boric acid.
10. What is the Inert pair effect?

Chapter 3: p-Block Elements - II

1. Mention the uses of nitrogen.
2. Write the properties of interhalogen compounds.
3. Prove that sulphuric acid is a dibasic acid.
4. What are the uses of Phosphorus?
5. Explain the electrolytic process.
6. Explain the preparation of bleaching powder.
7. Mention the uses of oxygen.
8. What are the properties of inert gases?

Chapter 4: Transition and Inner Transition elements.

1. Explain why Cr2+ is strongly reducing while MN3+ is strongly oxidising?
2. What are interstitial compounds?
3. What is Baeyer's reagent?
4. What is lanthanoid contraction?
5. What are the uses of Potassium permanganate?

Chapter 5: Coordination Chemistry.

1. $[Ti(h_2O)_6]^{3+}$ is coloured while $Sc(H_2O_6]^{3+}$ is colourless. Why?
2. Write the IUPAC name of the following compounds.
   I. CH_2=CH-CH_2OH
   II. C_6H_6-O-C_2H_5
3. Explain coordination isomerism with an example.
4. What is a coordination number?
5. Mention the limitations of VB theory.
6. Write the IUPAC ligand name of i) C_2O_4 ii)H_2O
7. Define the term central atom in coordination compounds.
8. Define the term coordination number.
9. How many atoms are there in a bcc structure?

Chapter 6: Solid state

1. Define a unit cell.
2. Mention any three characteristics of ionic crystals.
3. Differentiate between crystalline solids and amorphous solids.
4. Calculate the number of atoms present in the BCC unit cell.
5. What is packing efficiency?
6. Define molecular crystals with an example.
7. Define Isotropy.
8. Give any two characteristics of ionic crystals
9. Write Bragg's equation
10. What is a metal deficiency defect?
11. Mention the crystal defects.

Chapter 7: Chemical Kinetics

1. Define the Rate of a chemical reaction.
2. Differentiate between the rate and the rate constant of a reaction.
3. Differentiate between the order of a reaction and the molecularity of a reaction.
4. Define the half-life period.
5. Define pseudo-first-order reaction.
6. Give some examples of a zero-order reaction.

Chapter 8: Ionic Equilibrium

1. What are the limitations of the Arrhenius concept?
2. Define Lowry-Bronsted theory and its limitations.
3. Differentiate between Lewis acids and Lewis bases.
4. Define Buffer solution
5. Explain the common ion effect with an example.
6. What is a conjugate acid-base pair?

Chapter 9: Electrochemistry

1. Mention the various processes to prevent corrosion.
2. Define resistivity.
3. What does the conductivity of a solution decrease on dilution of the solution?
4. Define equivalent conductance.
5. Define Molar Conductance.
6. Define Faraday's first law.
7. What is an electrochemical cell?

Chapter 10: Surface Chemistry

1. What are the factors affecting adsorption?
2. Define autocatalysis with an example.
3. What are catalytic poisons? Give an example.
4. What are the limitations of intermediate compound formation theory?
5. What is electrodialysis?
6. Why are lyophilic colloidal sols more stable than lyophobic colloidal sols?
7. What is negative catalysis?

Chapter 11: Hydroxy compounds and ethers.

1. What are the tests for phenol?
2. How does glycerol react with KHSO4?
3. Give the IUPAC Names of i) $(C_2H_5)_3COH$ ii) $CH_2 = C(Cl) — CH (OH) CH_3$
4. Write the preparation of acrolein.
5. Write a note on the Tyndall effect.
6. Write the Saponification reaction.
7. How will you convert Phenol into i)Picric acid, ii)Phenolphthalein, iii)Salicyl aldehyde? Name the reactions.
8. How does anisole react with one mole of HI?
9. What are the uses of ethanol?
10. What are the uses of anisole?

Chapter 12: Carbonyl compounds and carboxylic acids

1. Write Stephen's reaction.
2. Write the Rosenmund reduction reaction. Mention the role of $Baso_4$.
3. Write the Knoevenagel reaction.
4. What are the uses of acetone?
5. Write the Esterification reaction.
6. Explain Popoff's rule.
7. How will you convert acetone into propane?
8. Write the Hoffman's degradation reaction.
9. How will you prepare i) Lactic acid from ethanal ii)Acetaldehyde from ethyne?

Chapter 13: Organic Nitrogen Compounds

1. What is choloropicrin? How is it prepared?
2. Differentiate between nitro form and aci form
3. Write the Schotten-Baumann reaction.
4. Write the Gattermann reaction.
5. What are the uses of nitrobenzene?
6. Write the mustard oil reaction.

Chapter 14: Biomolecules:

1. Write the preparation of Glucose.
2. What are called epimers? Give two examples.
3. Write a note on the importance of carbohydrates.
4. What are hormones? Give examples.
5. How are vitamins classified?
6. Write a note on the Peptide bond.
7. Differentiate between DNA and RNA
8. Write a note on the isoelectric point.

Chapter 15: Chemistry in everyday life.

1. Write the preparation of nylon 6,6.
2. What are antibiotics? Give examples.
3. State any three advantages of food additives.
4. How is terylene prepared?
5. How is Teflon prepared?
6. What are disinfectants?
7. Write the preparation of PHBV.