



Q.1. Answer the following short questions: (15x2=30)

- i. What are Hypsochromic groups?
- ii. What are the effects of impurities on the steel?
- iii. What is the basic principle of Electroplating?
- iv. What is Hollow Cathode Lamp and where it is used?
- v. Give names and formula of important ores of iron.
- vi. What is meant by passivity of iron
- vii. How flame photometer can be used to determine the sodium in glass?
- viii. Describe any one detector used in Gas Chromatography.
- ix. Why On-line analysis is important in Industry?
- x. What are the main constituents of Stainless Steel.
- xi. Give the chemical composition of Pig Iron.
- xii. Give Synthesis of Nitroso dyes.
- xiii. Give basic principle of Gas Chromatography.
- xiv. What are Mordants and give its role in dyeing?
- xv. What is Bathochromic Shift?

Q.2. Answer the following questions. (6x5=30)

- a) What is the Principle of HPLC? Give its applications in Pharmaceutical Industry.
- b) How Continuous analyzers differ from Discrete Analyzers? Which one are generally preferred?
- c) What are the Basic Operation involved in Dyeing?
- d) How Nickel Plating is carried out? Give its significance
- e) Give the detailed manufacturing of Wrought iron.
- f) Write are detail note on Acid dyes.