

V. P. & R. P. T. P. SCIENCE COLLEGE, V.V. NAGAR

INTERNAL TEST: MARCH-2014

T. Y. B. Sc. Semester-VI

Sub.:- Inorganic Chemistry (US06CCHE04)

Date: 13/03/2014

Time: 3.30 pm to 5.00 pm

Day: Thursday

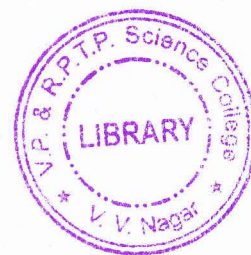
Total Marks : 30

Note: (i) All questions are to be attempted.

(ii) Figures to the right of each question indicate full marks.

Q : 1 Answers the following short questions(any three) [6]

- (1) State 'Pilling-Bed worth' rules of oxidation corrosion.
- (2) Give the mechanism of oxidation corrosion.
- (3) How will you prepare useful alloy of copper with aluminium?
- (4) List any two low melting alloys and give their uses.
- (5) Give only chemical reactions involved in Birkland and Eyde process for the manufacture of nitric acid.
- (6) Explain concentration of chamber acid by Gaillard Tower.



Q : 2 [A] Explain the term 'passivity' and give its alternative definitions. [4]

[B] Corrosion starts from metal joints. Explain. [4]

OR

Q : 2 [A] Describe the factors determining rate of corrosion for metal sheltered from rain. [4]

[B] What is meant by concentration cell corrosion? Explain briefly. [4]

Q : 3 [A] Write note on: Melting point of alloys. [4]

[B] Explain interstitial alloys and discuss the phase diagram of iron carbide alloy. [4]

OR

Q : 3 [A] Discuss the general relationship (rules) established by careful study of inter-metallic compounds. [4]

[B] Discuss how size and valence of metals play an important role in formation of different types of alloys? [4]

Q : 4 [A] Discuss the manufacturing process of sulphuric acid by contact process with required diagram and suitable theory.

[B] Give the chemical properties and uses of sodium hydroxide. [4]

OR

Q : 4[A] Discuss the Oswald's process for the manufacture of nitric acid. [4]

[B] Discuss the chemical properties of sulphuric acid under headings: [4]

- (i) Affinity for the water
- (ii) Action on metals
- (iii) Oxidizing action