

(3 Hours)

Total Marks: 80

N.B.

1. Question No. 1 is Compulsory.
- 2 Attempt any **Three** Questions from remaining **Five** Questions
3. Assume Suitable Data if needed and Justify the Same
4. Figures to the right indicate full marks.

Que.1

- a) Definition of corrosion and explain classification of corrosion [05]
- b) Explain Corrosion in sulphur bearing solutions [05]
- c) Write short note on Free Energy [05]
- d) Explain in detail Concentration cells [05]

Que.2

- a) Write functions and roles of corrosion engineer [10]
- b) Write short note on Anodic and Cathodic processes [10]

Que.3

- a) Explain in detail Nernst Equation [10]
- b) Explain surface area effect on corrosion [10]

Que.4

- a) Explain determination of rates of galvanic corrosion [10]
- b) Explain in detail Corrosion Prevention [10]

Que.5 Explain eight forms of corrosion with neat sketch [20]

Que.6 Write short note on

- a) Alteration of environment [05]
- b) Polarization [05]
- c) Faraday's law [05]
- d) hydrogen damage [05]
