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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech I Year I Semester Supplementary Examinations November-2022

ENGINEERING CHEMISTRY

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a Explain the process of scale and sludge formation in boilers. L2 6M
b What are the specifications of the drinking water BIS and WHO Standards? L1 6M

OR

- 2 Describe the Zeolite or permutit process for softening of water. what are the advantages and disadvantages of zeolite process. L3 12M

UNIT-II

- 3 What is a Fuel cell? Describe the Construction and Working of Hydrogen – Oxygen Fuel Cell. L3 12M

OR

- 4 Discuss in detail about electrochemical or wet corrosion. L3 12M

UNIT-III

- 5 Write the preparation, properties and application of Buna-S rubber ,Buna-N rubber and Thikol rubber. L2 12M

OR

- 6 Explain the analysis of Coal (Proximate and Ultimate) With its Significance. L2 12M

UNIT-IV

- 7 Define Viscosity? Determine the viscosity of lubricating oil by Redwood Viscometer. L2 12M

OR

- 8 a What is cement? How do you classify the cement? L1 6M
b Explain in detail about setting and hardening of Portland cement. L2 6M

UNIT-V

- 9 a Write an account on carbon nano tubes. L1 6M
b What are the factors influencing Adsorption of gases on solids. L1 6M

OR

- 10 Discuss the principle, instrumentation and applications of Transmission electron microscopy(TEM). L3 12M

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