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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year I Semester Regular & Supplementary Examinations May-2022
ENGINEERING CHEMISTRY
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

1 Describe the estimation of hardness by EDTA method. L3 12M

OR

2 Describe the Ion exchange process for demineralization of water? what are the advantages and disadvantages of ion exchange process? L3 12M

UNIT-II

3 a What is secondary Battery? Write a note on Lithium Ion rechargeable cell. L1 6M

b Describe the Construction and Working of Methanol – Oxygen Fuel cell. L3 6M

OR

4 Explain various factors influencing the rate of corrosion. L3 12M

UNIT-III

5 a Distinguish between Thermoplastics and Thermosetting plastics. L4 5M

b Describe the preparation, properties and uses of Bakelite. L3 7M

OR

6 Describe the method employed for the refining of petroleum with neat sketch. L3 12M

UNIT-IV

7 What is meant by composites? Classify the composites materials. L1 12M

OR

8 Define Cement. Explain in detailed about manufacture of Portland Cement. L2 12M

UNIT-V

9 Write any two methods synthesis of colloids with suitable examples. L1 12M

OR

10 Write a brief note on Applications of Colloids and Nano materials. L1 12M

*** END ***