Q.P. Code: 16HS604

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Reg. No: ☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year I Semester Supplementary Examinations Feb-2021
ENGINEERING CHEMISTRY
(Common to ECE, CSE & CSIT)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

1	a	Discuss about Electrolysis?	6M
	b	Write a note on Galvanic cell with suitable examples?	6M

OR

2	a	Write a note on Hydrogen-Oxygen fuel cell	4M
	b	Define corrosion? Discuss in detail about electrochemical or wet corrosion?	8M

UNIT-II

3	a	Describe the Zeolite or permutit process for softening of water. What are the advantages and disadvantages of zeolite process?	8M
	b	What are the units to express hardness of water?	4M

OR

4	a	Discuss about External treatment methods to remove hardness of water?	8M
	b	What is Priming and Foaming?	4M

UNIT-III

5	a	Explain Bergius process for the manufacture of synthetic petrol.	6M
	b	What are the characteristics of a good fuel? And Difine Calorific value.	6M

OR

6	a	Define Viscosity? Determine the viscosity of lubricating oil by Redwood Viscometer.	8M
	b	Define Lubricants? Discuss the important functions of Lubricants.	4M

UNIT-IV

7	a	What are conducting polymers? How are they classified? Write important engineering application?	8M
	b	Explain the mechanism of Cationic addition polymerization	4M

OR

8	a	Discuss the preparation, properties and uses of polyvinyl chloride.	6M
	b	Explain the following mechanism of Zieglar-Natta polymerization.	6M

UNIT-V

9	a	What is the refractoriness? Explain thermal spalling, dimensional stability and thermal conductivity of the refractories?	8M
	b	Chemical composition of Portland Cement?	4M

OR

10	a	Explain in detail about principles and application of semiconductors?	8M
	b	Define Doping? And Define Refractories?	4M

*** END ***