

[Code : B19BS1204]

I B.Tech II Semester (R19) Regular Examinations.
ENGINEERING CHEMISTRY
 (Common to CE & ME)
MODEL QUESTION PAPER

Time : 3Hrs.

Max. Marks :75M

 Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT - I					
1.	a).	What is hardness? How it is determined by EDTA method? Explain.	1	1	8
	b).	Describe with equations how water can be softened using Lime & Soda Process	1	2	7
OR					
2.	a).	Discuss various sterilizing methods used in municipal water treatment.	1	2	8
	b).	Illustrate the reverse osmosis Process with a neat diagram.	1	2	7
UNIT - II					
3.	a).	Explain the Proximate analysis of coal and give its significance.	2	2	8
	b).	Explain the fractional distillation of crude oil.	2	2	7
OR					
4.	a).	Write notes on (i)Knocking (ii)CNG	2	1	8
	b).	How Synthetic Petrol can be prepared by Bergius Process.	2	1	7
UNIT - III					
5.	a).	Explain the mechanism of electrochemical theory of corrosion with neat diagram.	3	2	8
	b).	Describe briefly about cathodic Protection.	3	2	7
OR					
6.	a).	Explain Hydrogen – Oxygen fuel cell with neat cell diagram	3	2	8
	b).	Discuss on various constituents of Paint.	3	6	7
UNIT - IV					
7.	a).	Explain the mechanism of free radical Polymerization reaction with a suitable example.	4	2	8
	b).	Distinguish between thermoplastics and thermosetting resins.	4	4	7
OR					
8.	a).	What are conducting Polymers? Discuss the applications of conducting Polymers.	4	1	8
	b).	Write notes on Bu Na – S and Bu Na – N.	4	1	7
UNIT - V					
9.	a).	Discuss chemistry involved in setting and hardening of cement?	5	6	8
	b).	What are refractories? Discuss the classification of refractories.	5	1	7
OR					
10.	a).	Write detailed account of various types of ceramics, their Properties and uses.	5	1	8
	b).	What are insulators? How are they are classified? Give examples.	5	1	7