



5	a) Describe the Ion-Exchange process for the removal of hardness of water with a neat diagram. (6M)	CO2	2
	b) Explain the formation of Sludges and Scales in Boilers and mention their disadvantages. (4M)	CO2	4
6	a) Explain the Mechanism of Oxidation Corrosion. (5M)	CO3	4
	b) Explain the construction and working of Li-ion battery. (5M)	CO3	4
OR			
7	Define fuel cell and explain the construction, working and applications of solid-oxide fuel cell. (10M)	CO3	4
8	a) Explain the Fisher-Tropsch's method of Synthesizing Petrol. (6M)	CO5	4
	b) State (4M)		
	i) HCV ii) LCV	CO5	1
OR			
9	Explain the Ultimate Analysis of Coal. Mention its significance. (10M)	CO5	4
10	Explain Preparation, Properties and Engineering applications of BUNA-S, BUTYL rubber. (10M)	CO4	4
OR			
11	a) Differentiate between Thermoplastics and Thermoset plastics. (5M)	CO4	2
	b) Explain Preparation, Properties and Engineering applications Nylon 6,6 & PVC. (5M)	CO4	4