



17	Describe the preparation, properties and engineering applications of PVC & Bakelite polymer. [10M]	4	L2
OR			
18	(a) What are the applications of Refractory materials. [5M] (b) What is composition of Portland cement. [5M]	4	L2
19	(a) Explain the molecular vibrations in IR Spectroscopy molecules. [5M] (b) Explain the NMR application of magnetic resonance imaging (MRI). [5M]	5	L2
OR			
20	(a) Explain the principle of NMR spectroscopy. [5M] (b) Write the application UV-visible spectroscopy. [5M]	5	L2