

OR

- b) Explain flue gas analysis by ORSAT method with suitable diagrams. 13 K2 CO3
14. a) What is a nuclear reactor? Describe the components of a light-water nuclear power plant with a suitable block diagram. 13 K2 CO4

OR

- b) Explain the construction and working principles of Lead-acid battery. 13 K2 CO4
15. a) How can you prepare the following? Write its properties and uses. 13 K2 CO5
(i) Kevlar (ii) Peek

OR

- b) Describe the CVD and electrodeposition techniques for the synthesis of nanoparticles. 13 K2 CO5

PART - C (1 × 15 = 15 Marks)

16. a) i) How is the softening of water carried out using the zeolite process? 8 K2 CO1
ii) Explain the proximate analysis of coal. Write its significance. 7 K2 CO3

OR

- b) i) What are the constituents of paints? Discuss the functions with examples. 8 K2 CO2
ii) Explain the charging and discharging reactions of Lithium-ion batteries. 7 K2 CO4