



Date: 30-04-2025

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

SECTION A

Answer any FOUR questions

(4 x 10 = 40)

1. What is Bordeaux mixture? Mention its preparation and two advantages.
2. Classify fertilizers. Write a short note on organic and inorganic types.
3. Define BOD and COD. Give any three major differences between them.
4. a) What is hardness of water? (5+5)
b) Distinguish between carbonate and non-carbonate hardness.
5. How is water gas prepared? Mention its composition and usage.
6. Explain the greenhouse effect. List any four greenhouse gases and their impact.
7. What are abrasives? How are they classified? Mention any two uses.
8. Define thermoplastic and thermosetting plastics and give two examples for each with applications.

SECTION B

Answer any THREE questions

(3 x 20 = 60)

9. Describe in detail the steps involved in the purification of drinking water.
10. What are ion exchange resins? With a neat diagram, explain the ion-exchange method for demineralisation of water.
11. a) Discuss the cracking process of petroleum in industries. (10+10)
b) Explain different types of cracking processes with examples.
12. Explain the various forms of energy and discuss their applications in domestic and industrial sectors.
13. a) Describe the large-scale manufacturing of urea. (10+10)
b) Give the names and structures of:
(i) 2,4-D (ii) 2,4,5-T
14. What are pollutants? Discuss in detail the causes and effects of air and water pollution.
