

**BACHELOR OF TECHNOLOGY (CBCS - 2023)**  
**B. Tech. Sem-I INFORMATION TECHNOLOGY : WINTER: 2025**  
**SUBJECT: ENGINEERING CHEMISTRY**

Day : Wednesday  
Date : 10/12/2025

**W-27657-2025**

Time : 10:00 AM-01:00 PM  
Max. Marks : 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagram **WHEREVER** necessary.
- 4) Assume suitable data if necessary.

Q.1 Explain ill effects of hard water in industrial boiler with preventive measures. [10]

OR

Q.1 Explain traditional and green pathway for synthesis of Adipic acid. [10]

Q.2 Explain synthesis, advantages and disadvantages of power alcohol. [10]

OR

Q.2 Write a note on octane and cetane number. [10]

Q.3 Define corrosion with its types. Give factors affecting on rate of corrosion. [10]

OR

Q.3 What is hot dipping? Explain Galvanization and tinning in details [10]

Q.4 Write a note on composite. [10]

OR

Q.4 Describe synthesis of polyurethane with properties and applications. [10]

Q.5 Describe fullerene with properties and applications. [10]

OR

Q.5 Write a note on sol-gel method. [10]

Q.6 Explain pH meter with instrumentation, working and applications. [10]

OR

Q.6 Write a note on UV/Visible spectroscopy. [10]

\* \* \* \*