BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-I Computer Science & Engineering : SUMMER : 2025
SUBJECT: ENGINEERING CHEMISTRY

Day : Wednesday
Date : 14/05/2025

S-27608-2025

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 **WHEREEVER** necessary.
4) Assume suitable data if necessary.

Q.1 Define Temporary hardness of water with example. Explain construction and working of Ion Exchange method for water softening with neat labelled diagram. **[10]**

OR

Q.1 Explain goals and twelve principles of Green chemistry with examples. **[10]**

Q.2 Define fuel with its types. Explain synthesis, properties and applications of Biodiesel. **[10]**

OR

Q.2 Write a note on Solar energy – Photovoltaic cells. **[10]**

Q.3 Define Electrochemical corrosion with example. Explain Hydrogen evolution and Oxygen absorption method with necessary diagram. **[10]**

OR

Q.3 Explain properties and chemical constituents of Paints with applications. **[10]**

Q.4 Describe synthesis, properties and applications of Polyurethane. **[10]**

OR

Q.4 Describe synthesis, properties and applications of Polyaniline. **[10]**

Q.5 Define Nanomaterial with examples. Write a note on Top-down and Bottom-up approach. **[10]**

OR

Q.5 Explain principle, construction and applications of Chemical vapour deposition method with neat labelled diagram. **[10]**

Q.6 Describe instrumentation, working and applications of pH meter with necessary diagram. **[10]**

OR

Q.6 State principle of UV/Visible Spectroscopy. Give applications of UV/Visible Spectroscopy with examples. **[10]**

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