

<b>Unit</b>	<b>Contents</b>	<b>Page No</b>
<b>I</b>	<b>CHEMISTRY IN EVERYDAY LIFE</b>	<b>1</b>
	1.1. Analgesic	1
	1.2. Antiseptics	2
	1.3. Antacid	3
	1.4. Disinfectant	3
	1.5. Artificial Sweetening Agents	5
	1.6. Sugar Substitutes	6
	1.7. Properties	6
	1.8. Saccharin	7
	1.9. Sucralose	8
	1.10. Cyclamates	8
	1.11. Non-Sugar Sweeteners	9
	1.12. Reasons for Use	9
	1.13. Food Preservatives	9
	1.14. Application of Chemical in Daily Life	11
	1.15. Water	12
	1.16. Demineralisation Processor ION Exchange Process	26
<b>II</b>	<b>CHEMISTRY FOR ENGINEERING PLASTICS</b>	<b>30</b>
	2.1. Plastics	40
	2.2. Based on Structure	41
	2.3. Classification based on Usage	42
	2.4. Important Engineering Plastics	43
<b>III</b>	<b>ELECTRO CHEMISTRY AND CORROSION SCIENCE</b>	<b>53</b>
	3.1. Introduction	53
	3.2. Electrode Potential	54
	3.3. Reference Electrodes (Standard Electrodes)	58
	3.4. Types of Cells	63
	3.5. EMF of a Cell	65
	3.6. Reversible and Irreversible Cells	67

3.7. Corrosion and Its Control	68
3.8. Protective Coatings	72
<b>IV NON-CONVENTIONAL ENERGY SOURCES</b>	<b>77</b>
4.1. Nuclear Fission	77
4.2. Characteristics of Nuclear Fission	78
4.3. Light Water Nuclear-Power-Plant	83
4.4. Breeder Reactor	84
4.5. Solar Energy Conversion	85
4.6. Photogalvanic Cell or Solar Cell	86
4.7. Wind Energy	89
4.8. Fuel Cells	90
4.9. Batteries	92
4.10. Types of Battery	93
4.11. Alkaline Battery	94
4.12. Lead Storage Cell or Lead Accumulator or Acid Storage Cell	95
4.13. Nickel-Cadmium Cell (or) Nicad Battery	97
4.14. Lithium Battery	98
<b>V ANALYTICAL TECHNIQUES</b>	<b>102</b>
5.1. Introduction	102
5.2. Types of Spectroscopy	102
5.3. Spectrum	103
5.4. Photophysical Law	103
5.5. Colorimetry	106
5.6. Visible and Ultraviolet (UV) Spectroscopy	109
5.7. Instrumentation	113
5.8. Infrared Spectroscopy	117
5.9. Flame Photometry (or) Flame Emission Spectroscopy	123
5.10. Atomic Absorption Spectroscopy	128

## **QUESTION BANK**