

# Content

## 1. SOME BASIC CONCEPTS OF CHEMISTRY

1-52

**Module 1.** Matter and Its Measurements 2-6  
Step Up Practice 1 6-7

**Module 2.** Laws of Chemical Combination, Atomic and Molecular Masses 8-11  
Step Up Practice 2 12-13

**Module 3.** Mole Concept, Percentage Composition and Chemical Formula 14-17  
Step Up Practice 3 18-19

**Module 4.** Stoichiometry and Stoichiometric Calculations 20-23  
Step Up Practice 4 24-25

**Module 5.** Concentration Terms 26-28  
Step Up Practice 5 29-30

- NEET Exclusive Extra Bytes 30
- Gearing Up for NEET 31-35
- Final Check Through PYQs 36-37
- Hints and Solutions 38-52

## 2. STRUCTURE OF ATOM

53-106

**Module 1.** Introduction of Atom, Earlier Atomic Models and Nature of Electromagnetic Radiations 54-60  
Step Up Practice 1 61-62

**Module 2.** Bohr's Model of Hydrogen Atom and Hydrogen Spectrum 62-68  
Step Up Practice 2 69-70

**Module 3.** Developments Leading to Quantum Mechanical Models 71-80  
Step Up Practice 3 81-82

- NEET Exclusive Extra Bytes 82

- Gearing Up for NEET 83-89
- Final Check Through PYQs 90-91
- Hints and Solutions 93-106

## 3. CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES

107-144

**Module 1.** Historical Development, Classification of Elements, Modern Periodic Table 108-115  
Step Up Practice 1 115-116

**Module 2.** Periodic Properties 117-128  
Step Up Practice 2 129-130

- NEET Exclusive Extra Bytes 130
- Gearing Up for NEET 131-135
- Final Check Through PYQs 136-137
- Hints and Solutions 138-144

## 4. CHEMICAL BONDING AND MOLECULAR STRUCTURE

145-201

**Module 1.** Kossel-Lewis Approach and Types of Bonding 146-152  
Step Up Practice 1 153-154

**Module 2.** Bond Parameter, Valence Bond Theory and VSEPR Theory 155-166  
Step Up Practice 2 166-167

**Module 3.** Molecular Orbital Theory and Hydrogen Bonding 168-176  
Step Up Practice 3 176-177

- NEET Exclusive Extra Bytes 177
- Gearing Up for NEET 178-183
- Final Check Through PYQs 184-186
- Hints and Solutions 188-201

## 5. CHEMICAL THERMODYNAMICS 202-235

<b>Module 1.</b> Basics of Thermodynamics	203-205
Step Up Practice 1	206
<b>Module 2.</b> First Law of Thermodynamics and Calorimetry	207-213
Step Up Practice 2	213-214
<b>Module 3.</b> Entropy and Second Law of Thermodynamics	215-218
Step Up Practice 3	219-220
• NEET Exclusive Extra Bytes	220
• Gearing Up for NEET	221-225
• Final Check Through PYQs	226-227
• Hints and Solutions	229-235

---

## 6. THERMOCHEMISTRY 236-261

<b>Module 1.</b> Thermochemistry : The Science of Enthalphy	237-243
Step Up Practice 1	243-245
<b>Module 2.</b> Bond Enthalpies and Laws of Thermochemistry	245-248
Step Up Practice 2	248-249
• NEET Exclusive Extra Bytes	249
• Gearing Up for NEET	250-254
• Final Check Through PYQs	255
• Hints and Solutions	256-261

---

## 7. CHEMICAL EQUILIBRIUM 262-294

<b>Module 1.</b> Physical and Chemical Equilibrium, Application of Equilibrium Constant	263-271
Step Up Practice 1	272-273
<b>Module 2.</b> Le-Chatelier's Principle	274-277
Step Up Practice 2	277-278
• NEET Exclusive Extra Bytes	279-280
• Gearing Up for NEET	281-285
• Final Check Through PYQs	285-286
• Hints and Solutions	287-294

## 8. IONIC EQUILIBRIUM 295-337

<b>Module 1.</b> Acid-Base Theory and Ionic Equilibrium in Solution	296-306
Step Up Practice 1	306-307
<b>Module 2.</b> Hydrolysis of Salts and Buffer Solution	308-313
Step Up Practice 2	314-315
<b>Module 3.</b> Solubility Product	315-317
Step Up Practice 3	317-318
• NEET Exclusive Extra Bytes	318
• Gearing Up for NEET	319-323
• Final Check Through PYQs	324-325
• Hints and Solutions	326-337

---

## 9. REDOX REACTIONS 338-366

<b>Module 1.</b> Oxidation, Reduction and Types of Redox Reactions	339-345
Step Up Practice 1	346-347
<b>Module 2.</b> Balancing of Equations of Redox Reactions, Redox Reaction as the Basis for Titrations and Electrode Processes	347-354
Step Up Practice 2	354-355
• NEET Exclusive Extra Bytes	355
• Gearing Up for NEET	356-359
• Final Check Through PYQs	360
• Hints and Solutions	361-366

---

## 10. ORGANIC COMPOUND AND THEIR NOMENCLATURE 367-399

<b>Module 1.</b> General Introduction and Structural Representations	368-372
Step Up Practice 1	373
<b>Module 2.</b> Nomenclature of Organic Compounds	374-386
Step Up Practice 2	387-388
• NEET Exclusive Extra Bytes	388
• Gearing Up for NEET	389-392

- Final Check Through PYQs 393
- Hints and Solutions 394-399

## 11. ISOMERISM IN ORGANIC CHEMISTRY 400-428

- Module 1.** Structure of Isomerism 401-404  
Step Up Practice 1 404-405
- Module 2.** Geometrical and Optical Isomerism 406-413  
Step Up Practice 2 414-416
- NEET Exclusive Extra Bytes 416
  - Gearing Up for NEET 417-421
  - Final Check Through PYQs 422
  - Hints and Solutions 423-428

## 12. FUNDAMENTAL CONCEPTS OF ORGANIC REACTION MECHANISM 429-462

- Module 1.** Bond Fission, Substrate and Reagents 430-432  
Step Up Practice 1 433
- Module 2.** Electron Movement in Organic Reactions 434-440  
Step Up Practice 2 441-442
- Module 3.** Reactions Intermediates 443-446  
Step Up Practice 3 446-447
- NEET Exclusive Extra Bytes 448
  - Gearing Up for NEET 449-453
  - Final Check Through PYQs 454-455
  - Hints and Solutions 456-462

## 13. PURIFICATION AND ELEMENTAL ANALYSIS 463-486

- Module 1.** Methods of Purification of Organic Compounds 464-470  
Step Up Practice 1 470-471
- Module 2.** Qualitative Analysis 471-474  
Step Up Practice 2 475-476
- NEET Exclusive Extra Bytes 476
  - Gearing Up for NEET 477-480
  - Final Check Through PYQs 481
  - Hints and Solutions 482-486

## 14. HYDROCARBONS 487-558

- Module 1.** Alkanes 488-499  
Step Up Practice 1 499-501
- Module 2.** Alkenes 502-510  
Step Up Practice 2 510-512
- Module 3.** Alkynes 513-519  
Step Up Practice 3 519-520
- Module 4.** Aromatic Hydrocarbons 521-531  
Step Up Practice 4 532-533
- NEET Exclusive Extra Bytes 534
  - Gearing Up for NEET 535-541
  - Final Check Through PYQs 541-545
  - Hints and Solutions 546-558
- 
- **Practice Test 01** 559-564
  - **Practice Test 02** 565-569
  - **Hints & Solutions** 570-576