

Contents

Preface (vii)

Acknowledgements(ix)

Chapter 1

Preformulation-I
(Physical Form: Crystal & Amorphous) 1

Chapter 2

Preformulation-I
(Polymorphism, Particle Size & Shape)..... 8

Chapter 3

Preformulation-I
(Solubility Profile (Solubility, pH and pKa)..... 12

Chapter 4

Preformulation-I
(Partition Coefficient & Flow Properties)..... 17

Chapter 5

Preformulation-II
(Hydrolysis, Oxidation, Reduction)..... 21

Chapter 6

Preformulation-II
(Racemization)..... 25

Chapter 7

Preformulation-II
(Dissolution, Permeability and BCS)..... 27

Chapter 8

Preformulation-II
 Polymerization30

Chapter 9

Tablets-I
 Introduction31

Chapter 10

Tablets-II
 Manufacturing Tablets36

Chapter 11

Tablets-III
 Tablet Coating38

Chapter 12

Tablets-IV
 QC of Tablets41

Chapter -13

Liquid Orals
 (Syrups and Elixirs)45

Chapter -14

Emulsion-I
 (Introduction Theories and Identification Tests)49

Chapter -15

Emulsion-II (Formulations of Emulsions)52

Chapter -16

Suspension Dosage Form56

Chapter 17

Parenterals-I
(Introduction: Preformulation of Parenterals).....60

Chapter 18

Parenterals-I
(Formulation of Parenterals).....62

Chapter 19

Parenterals-I
(Types of Parenteral Preparations)66

Chapter 20

Parenterals-I
(Plant lay out for Parenterals).....68

Module 21

Parenterals-II
(Pyrogens and Pyrogenicity)71

Chapter 22

Parenterals-II
(Sterility Test and Sterilization).....75

Chapter 23

Capsule-I78

Chapter 24

Capsule-II.....80

Chapter 25

Capsule-III82

Chapter 26

Capsule-IV84

Chapter- 27

Pellets & Pelletization86

Chapter - 28

**Ophthalmic Preparations
Introduction, Absorption through Eye,
Formulation Considerations.....87**

Chapter - 29

**Ophthalmic Preparations
Dosage Form89**

Chapter - 30

**Ophthalmic Preparations
Dosage Form91**

Chapter 31

Pharmaceutical Aerosols-I.....94

Chapter 32

**Pharmaceutical Aerosols-II
(Components of Aerosols).....96**

Chapter 33

**Pharmaceutical Aerosols-III
(Components and Systems of Aerosols).....99**

Chapter 34

**Pharmaceutical Aerosols-IV
(Inhalers and Evaluation of Aerosols).....102**

Chapter -35

Cosmetics-I..... 104

Chapter 36

**Cosmetics-II
(Sunscreen Preparations and Dentifrices)..... 106**

Chapter- 37

**Cosmetics-III
Shampoo, Hair Dye and Lipstick..... 108**

Chapter 38

**Packaging Materials Science-I
Materials 111**

Chapter 39

**Packaging Materials Science-II
Official Requirements & Stability Aspects 114**

Chapter 40

**Packaging Materials Science-III
QC Tests of Packaging Materials..... 117**

Glossary..... 121

FAQs..... 149

MCQs 179