

Contents

Preface(v)

Unit – I

Experimental Animal Studies

1. Laboratory Animals 2
2. CPCSEA Guidelines 9
3. OECD Guidelines 14
4. OCED for Good Laboratory Practice (GLP) 18
5. Transgenic and Mutant Animals 22
6. Blood Collection Techniques 27
7. Euthanasia 32

Unit – II

Preclinical Screening Models

1. Dose Selection 40
2. Preparation of Solutions of Some Unstable and/or Insoluble Compounds 44
3. Importance of Sham Negative and Positive Control Group 48
4. Screening Models 50

Unit – III

Preclinical Screening Models of A.N.S. Activities

1. Drugs Acting on Sympathetic Nervous System 86
2. Drugs Acting on Parasympathetic Nervous System 95
3. Skeletal Muscles Relaxants 101
4. Screening Models for Peripherally Acting Muscle Relaxants 104
5. Drugs of Eyes 106
6. Local Anaesthetics 112

Unit – IV

Presymptomatic Trial Model

Part 1: Preclinical Screening Models

1. Antihypertensives	122
2. Diuretic Models	128
3. Antiarrhythmic Activities	134
4. Coagulants	138
5. Antiaggregatory Method.....	141
6. Antiulcer	146
7. Antidiabetics	152
8. Anticancer Agents	155
9. Antiasthmatic Model	159

Part 2: Research Methodology and Bio-Statistics

1. Research Methodology	166
2. Literature Review	172
3. Research Hypothesis and Study Design	176
4. Student's 't' Test	179
5. Analysis of Variance.....	182
6. One Way ANOVA.....	184
7. Graphical Representation of Data.....	186