

CONTENTS

<i>Preface</i>	(v)
Experiment – 1	
Hydrotropy Studies	1
Experiment – 2	
Drug Excipient Incompatibility Studies	5
Experiment – 3	
Solid Dispersions	8
Experiment – 4	
Film Coated Tablets	12
Experiment – 5	
Effect of Surfactant on <i>In Vitro</i> Drug Release	16
Experiment – 6	
Floating Tablet	20
Experiment – 7	
Comparison of Antacid Activity	26
Experiment – 8	
Evaluation of Packaging Material	29
Experiment – 9	
Estimation of Pharmacokinetic Parameters	36
Experiment – 10	
Estimation of Pharmacokinetic Parameters by Urinary Excretion Method	42

(viii) Contents

Experiment – 11	
Estimation of Protein Binding	46
Experiment – 12	
Bioequivalence Study of Paracetamol	51
Experiment – 13	
Gel Formulation.....	58
Experiment – 14	
Microspheres by Solvent Evaporation Method	63
Experiment – 15	
Alginate Beads.....	68
Experiment – 16	
Transdermal Delivery System (Reservoir Type).....	74
Experiment – 17	
Transdermal Delivery System (Matrix Type).....	80
Experiment – 18	
Muco-adhesive Tablets.....	86
Experiment – 19	
Liposomes	91
Experiment – 20	
Niosomes.....	95
Experiment – 21	
Solid Lipid Nanoparticles.....	99
Experiment – 22	
Multiple Emulsions	105

Experiment – 23	
Fast Dissolving Tablets.....	111
Experiment – 24	
Ocuserts	115
Experiment – 25	
Chewable Tablets	119
Experiment – 26	
Nano Suspensions	123
Experiment – 27	
Bilayer Tablets.....	127
Experiment – 28	
Film Forming Polymeric Solutions.....	132
Experiment – 29	
Bioadhesive Gel	136
Experiment – 30	
Dissolution Media Selection	139
Experiment – 31	
<i>In Vitro</i> Rate of Absorption Determination	143
Experiment – 32	
<i>In Vitro In Vivo</i> Correlation.....	146
Experiment – 33	
Drug Release Kinetics	151
Experiment – 34	
Preformulation Studies	156

(x) Contents

Experiment – 35	
Sterile Ophthalmic Preparations	161
Experiment – 36	
pH Partition Hypothesis	165
Experiment – 37	
Enteric Tablets	169
Experiment – 38	
Calibration and Validation of Laboratory Equipment	173
Experiment – 39	
Spectroscopic Estimation of Drugs.....	182
Experiment – 40	
Thin Layer Chromatography Estimation of Drugs	186
Experiment – 41	
FTIR of Common Drugs	189
Experiment – 42	
General Polymers Used in Pharmaceuticals	193
Experiment – 43	
Common surfactants with HLB Values and Use.....	198
Experiment – 44	
Typical Release Kinetic Equations and Plots	202
Experiment – 45	
General Optimisation Techniques	205

Experiment – 46

Different Systems of Weights and Measures 215

Experiment – 47

Drugs and their General Properties..... 220

Experiment – 48

Standard Operating Procedures (SOPs)..... 227