

Contents

<i>Preface</i>	v
<i>Acknowledgement</i>	vii
Pharmacology- I	1
1. Introduction to Experimental Pharmacology	3
2. Commonly used Instruments in Experimental Pharmacology.....	7
3. Study of Common Laboratory Animals Maintenance of Laboratory Animals as per CPCSEA Guidelines	14
4. Common Laboratory Techniques.....	18
5. Study of Different Route of Drug Administration	28
6. Study of Effect of Hepatic Microsomal Enzyme Inducers on the	
Phenobarbitone Sleeping Time in Mice	30
7. Effect of Drugs on Ciliary Motility of Frog Oesophagus	31
8. Effect of Drugs on Rabbit Eye	33
9. Effects of Skeletal Muscle Relaxant using Rota-Rod Apparatus.....	35
10. Effect of Drugs on Locomotor Activity using Actophotometer	37
11. Anticonvulsant Effect of Drugs by Maximal Electro-Shock Induced	
Convulsions in Rats	39
12. Study of Anxiolytic Activity of Drugs using Mice/Rats	41
13. Study of Local Anaesthetics by Different Methods	43

Pharmacology- II 45

1. Introduction to in-vitro Pharmacology and Physiological Salt Solutions....	47
2. Effect of Drugs on Isolated Frog Heart	52
3. Effect of Drugs on Normal and Hypodynamic Perfused Frog Heart	54
4. Effect of Drugs on Blood Pressure and Heart Rate of Dog.....	56
5. Study of Diuretic Activity of Drugs using Rats/Mice (Lipschitz Test)	58
6. DRC of Acetylcholine using Frog Rectus Abdominis Muscle	60
7. Effect of Physostigmine on DRC of Acetylcholine using Frog Rectus	
Abdominis Muscle and Rat Ileum Respectively.....	62
8. Effect of Atropine on DRC of Acetylcholine using Frog Rectus Abdominis .	
Muscle and Rat Ileum Respectively.....	64
9. Bioassay of Oxytocin using Rat Uterine Horn by Interpolation Method	66
10. Bioassay of Serotonin using Rat Fundus Strip by Three Point Bioassay....	69
11. Determination of pA2 Value of Prazosin using Rat Anococcygeus Muscle ...	
(by Schilds Plot Method)	72
12. To Study the Anti-Inflammatory Property of Indomethacin Against	
Carrageenan-InducedAcute Paw Oedema in Rats	75
13. To Study the Analgesic Effect of Morphine in Mice using	
Hot Plate Method	77
14. To Study the Analgesic Effect of Morphine in Mice using	
Tail Flick Method	79
15. To Study the Analgesic Effect of Morphine Against Acid-Inducing	
Writhing in Mice	81

Pharmacology- III.....	83
1. Dose Calculation in Pharmacological Experiments.....	85
2. Anti-Allergic Activity by Mast Cell Stabilization Assay.....	88
3. Study of Anti-Ulcer Activity of a Drug Using Pylorus Ligand (SHAY) Rat Model and NSAIDS Induced Ulcer Model	90
4. Study of Anti-Ulcer Activity of a Drug using NSAIDS Induced Ulcer Model	93
5. Study of Effect of Drugs on Gastrointestinal Motility.....	95
6. Effect of Agonist and Antagonists on Guinea Pig Ileum	98
7. Estimation of Serum Biochemical Parameters by using Semi-Autoanalyzer.....	100
8. Effect of Saline Purgative on Frog Intestine	103
9. Insulin Hypoglycemic Effect in Rabbit.....	105
10. Test for Pyrogens (Rabbit Method).....	107
11. Determination of Acute Oral Toxicity (LD50) of a Drug from a Given Data.....	109
12. Determination of Acute Skin Irritation/Corrosion of a Test Substance	111
13. Determination of Acute Eye Irritation/Corrosion of a Test Substance.....	115
14. Calculation of Pharmacokinetic Parameters from a Given Data	117
15. Biostatistics Methods in Experimental Pharmacology (Student's t Test, ANOVA).....	119
16. Biostatistics Methods in Experimental Pharmacology (Chi Square Test, Wilcoxon Signed Rank Test).....	121
