Contents

P reface	v
Abbreviation	vii
Chapter 1—Introduction Measuring drug activity, I Aims of experimental pharmacology, I Study of instruments used in experimental pharmacology, 2 Physiological salt solutions for isolated tissues, 6 Housing of animals, 7 Characteristics of laboratory animals, 8 Administration of drugs to laboratory animals, 9 Animals used in experimental pharmacology, 10	1
Chapter 2—Routes of Administration of Drugs Experiment No. 1 Influence of route of administration on drug response, 13	13
Chapter 3—Experiments on Cardiovascular System Experiment No. 2 Effect of adrenaline, acetylcholine, potassium and calcium on frog heart, 15	15
Experiment No. 3 Identification of unknown sample of drug using isolated frog heart, 20	
Experiment No. 4 Identification of unknown sample of drug using perfused frog heart, 23	
Experiment No. 5 Effect of vasoconstrictors and vasodilators on blood vessels of frog, 27	
Experiment No. 6 Effect of cardiac glycoside (Digoxin/Digitoxin) on frog heart, 31	
Chapter 4—Experiments on Skeletal Muscle Experiment No. 7 Effect of acetylcholine on rectus abdominis muscle of frog, 35	35

X	Experimental Pharmacology	
	periment No. 8 otransformation of acetylcholine by cholinesterase enzyme, 40	
Pot	periment No. 9 tentiation of the action of acetylcholine by anticholinesterase ents, 42	
-	periment No. 10 armacological antagonism, 45	
Ide	periment No. 11 entification of unknown sample of drug using frog rectus abdominis uscle, 49	
Ch	napter 5—Experiments on Smooth Muscle	51
Ex _i Eff	periment No. 12 fect of histamine, acetylcholine and barium chloride on guinea pig um, 51	
	periment No. 13 entification of unknown sample of drug using guinea pig ileum, 60	
-	periment No. 14 fect of spasmogens and relaxants on rabbit intestine, 63	
Ch	napter 6—Drugs Acting on Eye	67
	periment No. 15	
-	fect of mydriatics and miotics on rabbit eye, 67	
	napter 7—Local Anaesthetics	71
	periment No. 16 Devaluation technique for local anaesthetic activity, 71	
Ch	napter 8—Drugs Acting on Central Nervous System	77
	periment No. 17	
Eff	fect of strychnine in frog, 77	
-	periment No. 18 fect of convulsants in mice, 79	
_	periment No. 19 fect of hypnotics in mice, 85	

	Experimental Pharmacology	XI
Experiment No. 20 Effect of chlorpromazine in rats, 90	,	
Experiment No. 21 Hypnosis potentiating effect of chlorprom	azine in mice, 95	
Chapter 9—Antihistaminics		97
Experiment No. 22 Effect of diphenhydramine in experimen guinea pigs, 97	tally produced asthma in	
Chapter 10—Pyrogen Testing		102
Experiment No. 23 Evaluation technique to identify the presence preparations, 102	e of pyrogens in parenteral	
Chapter 11—Absorption of Drugs		108
Experiment No. 24 Study of drug absorption in vitro (Transp membrane), 108	ort of drug across the cell	/
Chapter 12—Bioassay		112
Experiment No. 25		
(a) Bioassay of acetylcholine by comparectus abdominis muscle, 114	rative method using frog	
(b) Bioassay of acetylcholine by graphica abdominis muscle, 117	l method using frog rectus	
(c) Bioassay of acetylcholine by three-prectus abdominis muscle, 118	point bioassay using frog	

(d) Bioassay of acetylcholine by four-point bioassay method using

123

frog rectus abdominis muscle, 120

Index