

# Contents

Preface	vii	
Plates	46 to 47	
<b>SECTION 1: Haematology</b>		
1. Introduction to Haematology	3	
2. Study of Compound Microscope	5	
3. Methods of Collection of Blood	9	
4. Haemoglobinometry	12	
5. Determination of Total WBC Count	18	
6. Determination of Total RBC Count	24	
7. Determination of Differential WBC Count	30	
8. Determination of Bleeding Time and Clotting Time	37	
9. Determination of ESR	42	
10. Determination of Blood Indices	45	
11. Determination of Packed Cell Volume (Haematocrit)	48	
12. Determination of Blood Groups	51	
13. Determination of Osmotic Fragility and Specific Gravity of Blood	56	
14. Determination of Reticulocyte Count	60	
15. Determination of Platelet Count	63	
<b>SECTION 2: Clinical Physiology</b>		
16. General Examination and History Taking	69	
17. Examination of Alimentary System	79	
18. Examination of Arterial Pulse	89	
19. Recording of Blood Pressure	93	
20. Examination of Cardiovascular System	98	
21. Examination of Respiratory System	107	
22. Effect of Exercise on Posture and Blood Pressure	118	
23. A. Clinical Examination of Higher Functions	121	
B. Clinical Examination of Cranial Nerves I to VI	123	
C. Clinical Examination of Cranial Nerves VII to XII	135	
D. Clinical Examination of Sensory System	144	
E. Clinical Examination of Motor System	151	
24. Auditory Evoked Potential	167	
25. Visual Evoked Potential	170	
<b>SECTION 3: Human Experimental Physiology</b>		
26. Ergography	175	
27. Stethography	179	
28. Spirometry	182	
29. Determination of Vital Capacity	186	
30. Peak Expiratory Flow Rate	189	
31. Electrocardiography (ECG)	192	
32. Tests for Physical Fitness	197	
33. Perimetry	202	
34. Measurement of Reaction Time to Visual and Auditory Stimulus	206	
35. Electromyography (EMG)	208	
36. Nerve Conduction Studies	211	
37. Electroencephalogram (EEG)	215	
38. Tests for Pregnancy Diagnosis	220	
39. Cardiopulmonary Cerebral Resuscitation	222	
40. Preparation of Diet Sheet	228	
41. Autonomic Function Tests	230	
42. Body Composition Analysis and Calculation of BMR	239	
<b>SECTION 4: Charts, Calculations and Endocrine Disorders</b>		
<b>Part A: Charts</b>		
43. Action Potential in Nerve Fibres	243	
44. Action Potential in Purkinje Fibres	246	
45. Compound Action Potential	248	
46. Arterial Pulse Tracing	250	
47. Cystometrogram	252	
48. Gastric Analysis	254	
49. Glucose Tolerance Test	257	
50. Ishihara's Chart	260	
51. Jaeger's Chart	262	
52. Jugular Venous Pulse Tracing	264	
53. Snellen's Chart	266	
54. Strength Duration Curve	268	
55. Volume and Pressure Changes in Different Chambers of the Heart	270	

56. Oxygen Dissociation Curve	273	67. Genesis of Tetanus	313
57. Semen Analysis	275	68. Genesis of Fatigue	316
58. TPR Chart	278	69. Effect of Freeload and Afterload on Skeletal Muscle Contraction	318
59. Growth Charts and Anthropometric Assessment of Infants	280	70. Conduction Velocity of Nerve Impulse	321
<b>Part B: Calculations</b>		71. Effect of Temperature on Simple Muscle Curve	323
60. Calculations	286	<b>Part B: Amphibian Muscle-Cardiac Muscle Properties</b>	
<b>Part C: Endocrine Disorders</b>		72. Recording of Normal Cardiogram in Frog's Heart	325
61. Endocrine Disorders	290	73. Effect of Heat and Cold on Frog's Heart	327
<b>SECTION 5: Experimental Physiology</b>			
<b>Part A: Amphibian Nerve Muscle-Skeletal Muscle Properties</b>		74. To Study Properties of Cardiac Muscle of Frog's Heart	329
62. Introduction to Experimental Physiology (Amphibian Experiments)	297	75. Effect of Stannius Ligature on Frog's Heart	332
63. Nerve Muscle Preparation in Frog	302	76. Effect of Heart Block on Frog's Heart	334
64. Effect of Gradation of Stimuli	304	77. Effect of Vagus and Crescent Stimulation on Frog's Heart	336
65. Simple Muscle Curve	307	78. Effect of Acetylcholine on Frog's Heart	339
66. Effect of Two Successive Stimuli on Skeletal Muscle of Frog	310	79. Effect of Adrenaline on Frog's Heart	342
		80. Effect of Nicotine on Frog's Heart	344
		81. Effect of Perfusion on Frog's Heart	346

*Index* 349