

# Contents

<i>Forewords .....</i>	<i>v-vii</i>
<i>Preface .....</i>	<i>ix</i>
1. Historical Perspective, Characteristics, Taxonomy of Frog and Animal Laws .....	1
2. Instrumentation .....	6
3. Frog's Nerve Muscle Preparation .....	17
4. Effect of Graded Strength of Stimuli on Muscle Contraction.....	21
5. Simple Muscle Twitch ( SMT) .....	24
6. Effect of Temperature on Simple Muscle Twitch .....	29
7. Effect of Two Successive Stimuli on SMT .....	32
8. Pre-Load and After-Load .....	35
9. Phenomenon of Fatigue in Nerve Muscle Preparation .....	42
10. Isometric Contraction of Muscle.....	46
11. Effect of Repeated Stimuli (Tetanus) .....	53
12. Conduction Velocity of Nerve Impulses .....	57
13. Physiology of Frog's Heart .....	59
14. Normal Cardiogram .....	62
15. Effect of Temperature on Normal Cardiogram .....	65
16. Properties of Frog's Cardiac Muscle.....	68

16a. Stannius Ligature .....	69
16b. Extrasystole and Compensatory Pause .....	74
16c. All or None Law .....	77
16d. Staircase Phenomenon .....	79
16e. Summation of Subminimal Stimuli .....	81
17. Effect of Vagal Stimulation .....	83
18. Effect of Ions and Drugs on Isolated Perfused Heart of Frog.....	89
19. Preserving the Graphs .....	94
20. Disposal of Specimen.....	95
21. A Word of Gratitude.....	97
<i>Bibliography</i> .....	98