

CONTENTS

1. INTRODUCTION TO THE PRACTICAL LESSONS AND THE PRINCIPLES OF ACCURATE RECORDING	5
1.1. ORGANIZATION AND TOPICS OF THE PRACTICAL LESSONS	5
1.2. TEACHING AIDS USED IN THE PRACTICALS	6
1.3. INSTRUCTIONS FOR KEEPING A WRITTEN RECORD	6
2. LIGHT MICROSCOPY	7
2.1. CONSTRUCTION OF THE LIGHT MICROSCOPE	7
2.2. IMAGING IN THE LIGHT MICROSCOPE	8
2.3. USE OF A MICROSCOPE	9
3. GUIDELINES FOR THE STUDENT'S WORK IN THE PRACTICALS	11
3.1. BASIC HISTOLOGICAL AND ELECTRON-MICROSCOPIC TECHNIQUES. HISTOLOGICAL AND ELECTRON-MICROSCOPIC LABORATORY	11
3.2. STRUCTURE OF THE ANIMAL CELL - NUCLEUS, CELL ORGANELLES, INCLUSIONS, CYTOSKELETON, CELL SURFACES. VITAL PROCESSES OF THE CELL.	12
3.3. LIGHT MICROSCOPE - DETERMINATION OF STRUCTURES IN HISTOLOGICAL SLIDES.	14
3.4. INTRODUCTION INTO THE STUDY OF TISSUES. EPITHELIAL TISSUE.	15
3.5. CONNECTIVE TISSUES (GENERAL)	16
3.6. MUSCULAR TISSUE	19
3.7. NERVOUS TISSUE - NEURONS AND SYNAPSES. NEUROGLIA	20

3.8. THE MORPHOLOGY AND DEVELOPMENT OF BLOOD CELLS	21
3.9. THE CARDIOVASCULAR SYSTEM	22
3.10. THE LYMPHATIC SYSTEM	24
3.11. THE RESPIRATORY SYSTEM	27
3.12. DIGESTIVE SYSTEM	30
3.13. ENDOCRINE GLANDS	39
3.14. URINARY SYSTEM	41
3.15. MALE REPRODUCTIVE SYSTEM	44
3.16. FEMALE REPRODUCTIVE SYSTEM	47
3.17. NERVOUS SYSTEM	52
3.18. SENSORY ORGANS	56
3.19. INTEGUMENTARY SYSTEM	60
4. LIGHT MICROSCOPIC EXAMINATION OF HISTOLOGICAL STRUCTURES	64