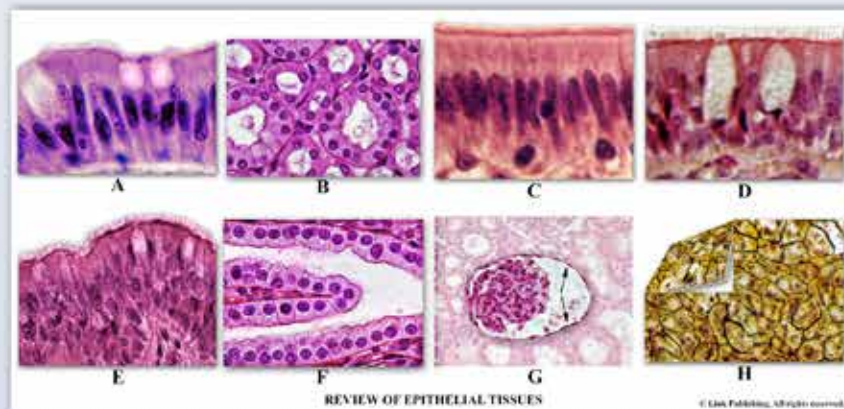


# ANATOMY AND PHYSIOLOGY TEXT and LABORATORY WORKBOOK

## CHAPTER 13 INTRODUCTION TO TISSUES



# TABLE OF CONTENTS

<b>TISSUES</b>	<b>5</b>
Learning Outcomes Review Questions	5
Practice Test 1 - INTRODUCTION TO TISSUES	5
<b>EPITHELIAL TISSUE</b>	<b>6</b>
Locations	6
Functions	6
Characteristics of Epithelial Tissues	8
Learning Outcomes Review Questions	9
Practice Test 2 - LOCATION, FUNCTION, AND CHARACTERISTICS OF EPITHELIUM	9
Classification of Epithelia	10
Structure of Epithelia	10
Learning Outcomes Review Questions	12
Practice Test 3 - CLASSIFICATION OF EPITHELIUM	12
Practice Test 4 - TYPES OF TISSUES - TERMINOLOGY EXAM	12
<b>SIMPLE EPITHELIA</b>	<b>13</b>
Simple Squamous Epithelium	13
Lab Activity 1 - Observation of Simple Squamous Epithelium	15
Learning Outcomes Review Questions	16
Practice Test 5 - SIMPLE SQUAMOUS EPITHELIUM	17
Simple Cuboidal Epithelium	18
Lab Activity 2 - Observation of Simple Cuboidal Epithelium	18
Learning Outcomes Review Questions	19
Practice Test 6 - SIMPLE CUBOIDAL EPITHELIUM	19
Simple Columnar Epithelium	20
Lab Activity 3 - Observation of Simple Columnar Epithelium	20
Learning Outcomes Review Questions	21
Practice Test 7 - SIMPLE COLUMNAR EPITHELIUM	21
Pseudostratified Ciliated Columnar Epithelium	22
Lab Activity 4 - Observation of Ciliated Pseudostratified Columnar Epithelium	22
Learning Outcomes Review Questions	23
Practice Test 8 - PSEUDOSTRATIFIED COLUMNAR EPITHELIUM	23
<b>EPITHELIA REVIEW</b>	<b>24</b>
Learning Outcomes Review Questions	24
Practice Test 9 - REVIEW OF SIMPLE EPITHELIA	24
<b>STRATIFIED EPITHELIA</b>	<b>25</b>
Stratified Squamous Epithelium	25
Lab Activity 5 - Observation of Nonkeratinized and keratinized Stratified Squamous Epithelium	25
Learning Outcomes Review Questions	27
Practice Test 10 - STRATIFIED SQUAMOUS EPITHELIUM	27
Transitional Epithelium	28
Lab activity 6 - Observation of Transitional Epithelium	28
Learning Outcomes Review Questions	29
Practice Test 11 - TRANSITIONAL EPITHELIUM	29
<b>STRATIFIED EPITHELIA REVIEW</b>	<b>30</b>
Learning Outcomes Review Questions	30
Practice Test 12 - REVIEW OF STRATIFIED EPITHELIA	30
<b>TERMINOLOGY EXAMS</b>	<b>31</b>
Practice Test 13 - TYPES OF EPITHELIA - TERMINOLOGY EXAM	31
Practice Test 14 - CHARACTERISTICS OF EPITHELIA - TERMINOLOGY EXAM	31
Practice Test 15 - FUNCTIONS OF EPITHELIA - TERMINOLOGY EXAM	31
<b>CLASSIFICATION OF EPITHELIA ACCORDING TO LOCATION</b>	<b>32</b>
Endothelium	32
<b>EPITHELIAL MEMBRANES</b>	<b>33</b>
Mucous membranes (mucosae)	33
Serous Membranes (serosae)	34
Cutaneous Membrane	35

Learning Outcomes Review Questions .....	36
Practice Test 16 - CLASSIFICATION ACCORDING TO LOCATION .....	36
<b>GLANDULAR EPITHELIA .....</b>	<b>37</b>
Exocrine glands .....	37
Endocrine glands .....	37
<b>GLANDULAR SECRETION .....</b>	<b>38</b>
Merocrine Glands .....	38
Apocrine Glands .....	38
Holocrine Glands .....	39
Learning Outcomes Review Questions .....	39
Practice Test 17 - GLANDULAR EPITHELIUM AND SECRETION .....	40
Practice Test 18 - TYPES OF GLANDS - TERMINOLOGY EXAM .....	40
<b>CONNECTIVE TISSUE .....</b>	<b>41</b>
Locations .....	41
Functions .....	41
Characteristics .....	41
Components.....	41
Classification .....	42
Learning Outcomes Review Questions .....	43
Practice Test 19 - INTRODUCTION TO CONNECTIVE TISSUE .....	44
Practice Test 20 - TERMINOLOGY EXAM, INTRODUCTION TO CONNECTIVE TISSUE .....	44
Practice Test 21 - TERMINOLOGY EXAM, CONNECTIVE TISSUE WITH DISTINCTIVE FIBERS .....	44
<b>THE LOOSE CONNECTIVE TISSUES .....</b>	<b>45</b>
<b>(AREOLAR, ADIPOSE, AND RETICULAR TISSUES) .....</b>	<b>45</b>
Areolar Tissue .....	45
Lab Activity 7 - Observation of Areolar Tissue .....	45
Learning Outcomes Review Questions .....	46
Practice Test 22 - AREOLAR TISSUE .....	46
Adipose Tissue .....	47
Lab Activity 8 - Observation of Adipose Tissue .....	47
Learning Outcomes Review Questions .....	49
Practice Test 23 - ADIPOSE TISSUE .....	49
Reticular Connective Tissue .....	50
Lab Activity 9 - Observation of Reticular Tissue .....	50
Learning Outcomes Review Questions .....	51
Practice Test 24 - RETICULAR TISSUE .....	51
<b>REVIEW - LOOSE CONNECTIVE TISSUE .....</b>	<b>52</b>
Practice Test 25 - REVIEW - LOOSE CONNECTIVE TISSUE .....	52
<b>THE DENSE CONNECTIVE TISSUES .....</b>	<b>53</b>
<b>(DENSE REGULAR, DENSE IRREGULAR, AND ELASTIC CONNECTIVE TISSUES) .....</b>	<b>53</b>
Dense Regular Connective Tissue .....	53
Lab Activity 10 - Observation of Dense Regular Connective Tissue .....	53
Learning Outcomes Review Questions .....	54
Practice Test 26 - DENSE REGULAR CONNECTIVE TISSUE .....	54
Dense Irregular Connective Tissue .....	55
Lab Activity 11-Observation of Dense Irregular Connective Tissue .....	55
Learning Outcomes Review Questions .....	56
Practice Test 27 - DENSE IRREGULAR CONNECTIVE TISSUE .....	56
Elastic Connective Tissue .....	57
Lab Activity 12 - Observation of Elastic Connective Tissue .....	57
Learning Outcomes Review Questions .....	58
Practice Test 28 - ELASTIC CONNECTIVE TISSUE .....	58
<b>REVIEW OF CONNECTIVE TISSUE .....</b>	<b>59</b>
Learning Outcomes Review Questions .....	59
Practice Test 29 - REVIEW OF CONNECTIVE TISSUE .....	59

<b>CARTILAGE</b>	<b>60</b>
Learning Outcomes Review Questions	60
Practice Test 30 - INTRODUCTION TO CARTILAGE	60
Hyaline Cartilage	61
Lab Activity 13 - Observation of Hyaline Cartilage	61
Learning Outcomes Review Questions	62
Practice Test 31 - HYALINE CARTILAGE	62
Fibrocartilage	63
Lab Activity 14 - Observation of Fibrocartilage	63
Learning Outcomes Review Questions	64
Practice Test 32 - FIBROCARTILAGE	64
Elastic Cartilage	65
Lab Activity 15 - Observation of Elastic Cartilage	65
Learning Outcomes Review Questions	66
Practice Test 33 - ELASTIC CARTILAGE	66
<b>REVIEW OF CARTILAGE</b>	<b>67</b>
Learning Outcomes Review Questions	67
<b>Practice Test 34 - REVIEW exam - types of CARTILAGE</b>	<b>67</b>
Practice Test 35 - TERMINOLOGY EXAM - CARTILAGE	67
<b>BONE (OSSEOUS TISSUE)</b>	<b>68</b>
Lab Activity 16 - Observation of Bone (ground)	68
Learning Outcomes Review Questions	70
Practice Test 36 - BONE (OSSEOUS TISSUE) exam	71
Practice Test 37 - BONE (OSSEOUS TISSUE) - TERMINOLOGY EXAM	71
<b>BLOOD</b>	<b>72</b>
Lab Activity 17 - Observation of Blood (human)	72
Learning Outcomes Review Questions	73
Practice Test 38 - BLOOD	73
Practice Test 39 - VIDEO AND EXAM - FRESH BLOOD	74
Practice Test 40 - TERMINOLOGY EXAM, BLOOD	74
<b>MUSCLE TISSUE</b>	<b>75</b>
Learning Outcomes Review Questions	75
Practice Test 41 - INTRODUCTION TO MUSCLE TISSUE	75
<b>SKELETAL MUSCLE TISSUE</b>	<b>76</b>
Lab Activity 18 - Observation of Skeletal Muscle Tissue	76
Practice Test 42 - SKELETAL MUSCLE	78
<b>CARDIAC MUSCLE TISSUE</b>	<b>79</b>
Lab Activity 19 - Observation of Cardiac Muscle Tissue	79
Learning Outcomes Review Questions	80
Practice Test 43 - CARDIAC MUSCLE	80
<b>SMOOTH MUSCLE</b>	<b>81</b>
Lab Activity 20 - Observation of Smooth muscle tissue	81
Lab Activity 21 - Observation of Smooth muscle - teased	81
Practice Test 44 - SMOOTH MUSCLE	82
<b>REVIEW OF MUSCLE TISSUE</b>	<b>83</b>
Learning Outcomes Review Questions	83
Practice Test 45 - REVIEW OF MUSCLE TISSUE	83
Practice Test 46 - terminology - MUSCLE EXAM	83
<b>NERVE TISSUE</b>	<b>84</b>
Lab Activity 22 - Observation of Spinal Cord	84
Lab Activity 23 - Observation of Motor Nerve Cells, smear	87
Learning Outcomes Review Questions	88
Practice Test 47 - NERVE (NEURAL) TISSUE	91
Learning Outcomes Review Questions	91
Practice Test 48 - TERMINOLOGY EXAM -NERVE (NEURAL) TISSUE	91
<b>COPYRIGHT AND PRODUCT DETAILS</b>	<b>92</b>