

ANATOMY AND PHYSIOLOGY TEXT and LABORATORY WORKBOOK

CHAPTER 9 INTRODUCTION TO THE CELL

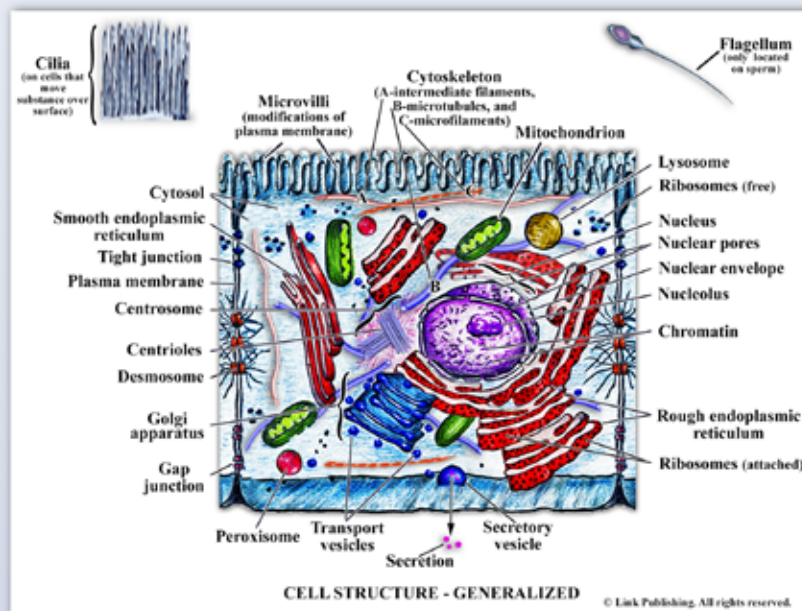


TABLE OF CONTENTS

INTRODUCTION TO CYTOLOGY

4

Learning Outcomes Review Questions	4
Practice Test 1 - Terminology Review - Cytology	4
INTRODUCTION TO CELL STRUCTURE - LABORATORY STUDY	5
Lab Activity 1 - Introduction To Cell Structure	5
Learning Outcomes Review Questions	6
Practice Test 2 - Introduction To CELL structure	6
Lab Activities #2 - #9	7
Study of Exfoliated Squamous Cells	7
Lab Activity 2 - Exfoliated Squamous Cells	8
Exfoliated Squamous Cells	10
Prepared Slide Observation	10
Observations of Exfoliated Cells	10
Learning Outcomes Review Questions	12
Practice test 3 - Video and Exam - Exfoliated Squamous Cells	13
Practice Test 4 - Exam of Exfoliated Squamous Cells	13
Practice Test 5 - Stratified Squamous Epithelium - Exfoliated Squamous Cells	13
STUDY OF ADIPOSE TISSUE	14
Lab Activity 3 - Observation of Adipocytes	15
Learning Outcomes Review Questions	16
Practice Test 6 - Video of Adipose Tissue	16
Practice Test 7 - Adipose Tissue	16
STUDY OF BLOOD CELLS	17
Lab Activity 5 - Observation of Blood	18
Learning Outcomes Review Questions	19
Practice Test 8 - Blood	19
Practice Test 9 - Video of Blood Smear	19
Practice Test 10 - Video of Fresh Blood	19
STUDY OF HUMAN SPERM	20
Lab Activity 6 - Observation of Sperm	20
Learning Outcomes Review Questions	21
Practice Test 11 - Sperm	21
Practice Test 11 - Sperm	21
STUDY OF CILIATED COLUMNAR CELLS and GOBLET (MUCOUS) CELLS	22
Lab Activity 7 - Observation of Ciliated Columnar Cells	23
Learning Outcomes Review Questions	24
Practice Test 12 - Ciliated columnar epithelium	24
STUDY OF SMOOTH MUSCLE CELLS	25
Lab Activity 8 - Observation of Smooth Muscle Cells	26
Lab Activity 9 - Observation of a Smooth Muscle Cell	27
Learning Outcomes Review Questions	28
Practice Test 13 - Smooth Muscle, Tissue and Teased Cells	28
Learning Outcomes Review Questions	29
Practice test 14 - Cell Structure Overview (Lab Activities 2 - 10)	29
STUDY OF THE STRUCTURE AND FUNCTION OF THE CELL	30
(GENERALIZED CELL)	30
CELL COMPONENTS	31
Cell Components Overview	33
Learning Outcomes Review Questions	37
CYTOSKELETON	38
Microfilaments	38
Intermediate Filaments	39
Microtubules	40
Learning Outcomes Review Questions	41
Practice Test 17 - Cytoskeleton	41

PLASMA MEMBRANE - OVERVIEW	42
MOLECULAR STRUCTURE OF PLASMA MEMBRANE	43
Learning Outcomes Review Questions	45
Practice test 18 - Plasma membrane Overview and Molecular Structure	45
LIPID MOLECULES OF PLASMA MEMBRANE	46
Lipid Molecules - Functions	47
Learning Outcomes Review Questions	49
Practice Test 19 - Lipid Molecules of Plasma membrane	49
PROTEIN MOLECULES OF PLASMA MEMBRANE	50
Protein Molecules - Functions	50
Learning Outcomes Review Questions	54
Practice Test 20 - Protein Molecules of Plasma membrane	56
PLASMA MEMBRANE JUNCTIONS	57
Gap Junctions	57
Desmosomes	57
Lab Activity 11 - Desmosomes - Intercellular Bridges	58
Tight Junctions	58
Learning Outcomes Review Questions	59
Practice Test 21 - Plasma Membrane Junctions	60
MICROVILLI	61
Learning Outcomes Review Questions	62
Practice Test 22 - Microvilli	62
NUCLEUS	63
Nuclear Envelope	64
Chromatin	64
NUCLEOLI	65
Learning Outcomes Review Questions	66
Practice Test 23 - Nucleus, Chromatin, and Nucleoli	67
MITOCHONDRIA	68
Lab Activity 12 - Observation of Mitochondria	69
Learning Outcomes Review Questions	70
RIBOSOMES	71
Learning Outcomes Review Questions	72
Practice Test 25 - Ribosomes	72
ENDOPLASMIC RETICULUM (ER)	73
Learning Outcomes Review Questions	75
Practice Test 26 - Endoplasmic Reticulum (ER)	75
GOLGI APPARATUS	76
Learning Outcomes Review Questions	78
Practice Test 27 - Golgi Apparatus	78
LYSOSOMES	79
Learning Outcomes Review Questions	80
Practice Test 28 - Lysosomes	80
PEROXISOMES	81
Practice Test 29 - Peroxisomes	81
CENTROSOME AND CENTRIOLES	82
Learning Outcomes Review Questions	83
Practice Test 30 - Centrosome and Centrioles	83
CILIA AND FLAGELLA	84
Learning Outcomes Review Questions	85
Practice Test 31 - Cilia and Flagella	86
INCLUSIONS	87
Learning Outcomes Review Questions	87
Practice Test 32 - Inclusions	87
COPYRIGHT AND PRODUCT DETAILS	88