APHY 102 Lab Exam 3 Structures and Parts

Using models, diagrams, 35 mm slides, computer graphics, specimens or microscope slides, pictures from textbook, lab book, Canvas; be able to identify and know the function, meaning, location of the following:

A. Urinary System

1. Kidney

a. Renal blood vessels

1. Renal artery

2. Renal vein

3. Segmental artery

4. Interlobar artery

5. Arcuate artery

6. Cortical radiate artery

7. Afferent arteriole

8. Efferent arteriole

b. Hilum

c. Renal cortex

1. Renal column

d. Renal medulla

1. Renal pyramid

2. Renal papilla

e. Renal pelvis

1. Major calyx

2. Minor calyx

f. Nephron

1. Renal corpuscle

a. Bowman’s capsule

b. Glomerulus

1. Podocytes

2. Renal tubule

a. Proximal convoluted tubule

b. Nephron loop (loop of Henle)

c. Distal convoluted tubule

3. Cortical nephron

a. Peritubular capillary

4. Juxtamedullary nephron

a. Vasa recta

g. Collecting duct

2. Ureter

a. Transitional epithelium

b. Smooth muscle

3. Bladder

a. Rugae

b. Detrusor muscle

c. Transitional epithelium

d. Internal urethral sphincter

e. External urethral sphincter

4. Urethra

B. Lymphatic and Immune System

1. Lymphatic capillary

a. Valve

2. Collecting lymphatic vessels

3. Lymphatic trunk

4. Right lymphatic duct

5. Thoracic duct (left)

a. Cisterna chyli

6. Lymph node

a. Cortex

b. Medulla

1. Germinal center

2. Lymphoid follicles/nodules

c. Afferent lymphatic vessel

d. Efferent lymphatic vessel

e. Hilum

f. Reticular tissue

7. Spleen

a. Capsule

b. Red pulp

c. White pulp

d. Reticular tissue

8. Thymus

9. Tonsil

a. Pharyngeal

b. Palatine

c. Lingual

d. Lymphoid follicles

e. Germinal center

f. Tonsillar crypts

g. Reticular tissue

9. Immune cells

a. Neutrophil

b. Eosinophil

c. Basophil

d. Lymphocyte

e. Monocyte

f. Macrophage

g. Erythrocyte

10. Mucosa-associated lymphoid tissue

a. Appendix

b. Peyer’s patches

c. Tonsils

C. Endocrine System

1. Pineal gland

a. Pineal sand

2. Hypothalamus

3. Pituitary gland

a. Anterior pituitary (adenohypophysis)

b. Posterior pituitary (neurohypohysis)

4. Thyroid gland

a. Colloid

b. Colloid-filled follicles

c. Follicular cells

d. Capsule

5. Parathyroid gland

6. Thymus gland

7. Adrenal gland

a. Cortex

b. Medulla

c. Capsule

8. Pancreas

a. Islets of Langerhans

b. Head

c. Body

d. Tail

9. Gonads

a. Ovary

b. Testis

10. Mammary gland

a. Nipple

b. Areola

D. Endocrine Disorders

1. Gigantism

2. Acromegaly

3. Pituitary dwarfism

4. Myxedema

5. Goiter

6. Cretinism

7. Exophthalmos

8. Cushing's syndrome

9. Addison's disease

**Kidney Dissection**

Exterior of the kidney: hilum, renal artery, renal vein, ureter.

Longitudinal section: calyx, cortex, medulla, renal pyramid, base of pyramid, papilla, renal column, renal pelvis.