**OCEAN COUNTY COLLEGE BIOL 131 Human Anatomy**

**Department of Science and Physiology II**

 **Instructor: Dr. Angel Camilo**

**Laboratory Practical II**

A. **Respiratory System:**

1. Histology: Trachea

 Lung

2. Models:

 a) Half-head Model (also for digestive system)

 -naris (external) -hard palate

 -nasal conchae -pharynx (nasopharynx, oropharynx, laryngopharynx)

 -tongue -uvula

 b) Bronchial Tree (C-rings of trachea, Tracheal muscle, Larynx, primary, secondary and tertiary bronchi)

 c) Larynx Model

 -hyoid bone -glottis -vocal cords -epiglottis

 -thyroid cartilage -cricoid cartilage -arytenoid cartilage

 -tracheal cartilage -corniculate cartilage -trachea (C-ring cartilage,

 Trachialis muscle)

3. Acid-Base Balance (Handout) – Know the reaction and enzyme

 a) CO2 + H2O carbonic anhydrase H2CO3 HCO3 +H+

**B. Urinary System:**

1. Histology: Bladder (Mucosa: transitional epithelium, Muscular layer, Fibrous adventitia)

 Kidney (cortical and medullary areas, glomerulus)

2. Models:

 a) Nephron, Kidney

 -cortex -medulla -renal pelvis -renal papilla -renal columns

 -renal pyramids -renal artery -renal vein -ureter

 -interlobar artery/vein -interlobular artery/vein -arcuate artery/vein

 -glomerulus -bowmans capsule -proximal convoluted tubule

 -nephron loop (loop of Henle) -distal convoluted tubule -collecting duct

 -major and minor calyx -efferent/afferent arterioles

**C. Digestive System:**

1. Histology: Stomach Salivary Gland (Serous, Mucous cells)

 Liver (hepatocyte, Kupffer cells) Small intestine

 Large intestine(gobletcells) Pancreas (acinar exocrine cells)

2. Digestive System Models:

 a. Intestinal Villi model

 b. Half-head model

 c. Mandible

 - teeth (incisors, canines and molars)

 d. Torso model

 -esophagus

 -stomach (greater and lesser curvature, cardiac, fundus and pyloric regions)

 -small intestine (duodenum, jejunum, ileum)

 -large intestine (cecum, ascending colon, right colic, transverse colon, left colic, descending colon, sigmoid colon, rectum)

 -liver

 -gall bladder

 -pancreas

 e. Duodenum, Pancreas (Pancreatic Duct), Gallbladder, Spleen model

3. Chemical and Physical Processes of Digestion

 \*amylase and trypsin

**D. Reproduction System:**

1. Histology: Penis cross-section Uterus

 Testis/Epididymis (semineferious tubles) (Endometrium with functional & basal layer)

 Seminal Vesicle Myometrium

 Ovary (graffian follicle)

 (germ cells)

 (oocyte)

2. Models:

 a. Female Reproduction model

 -greater pudendal lip (major labia) -smaller pudendal lip (minor labia), mons pubis

 -clitoris -urinary bladder -ureter -vagina -uterus

 -cervix -uterine tube (fimbriae, infundibulum)

 b. Male Reproductive model

 -urinary bladder -prostate -seminal vesicles -penis

 -glans penis -external urethral orifice -testicle -epididymis -rectum

 -spermatic cord -bulb urethral gland -ejaculatory duct -pampinform plexis