Name: Period:

Semester 2 Review

Units 1 thru 16

1. Describe the events that occur at a neuromuscular junction.

2. List the four main types of tissues found in humans. For each tissue type, list the tissue's major characteristics.

3. Name and describe two major types of passive transport.

4. Name and describe the major methods of active transport.

5. List and describe the layers of the skin, including the hypodermis.

6. Name and describe the major types of body (epithelial and connective) membranes.

7. Explain the difference between eccrine and sebaceous glands.

8. Distinguish between negative and positive feedback mechanisms.

9. Sketch and label the major parts of a long bone. Additionally, describe compact bone microstructure.

10. Sketch and label a neuron. Explain the difference between multipolar, bipolar, and unipolar neurons.

11. Sketch and label the major structures of the human eye.

12. Sketch and label the major components of the human ear.

13. Distinguish between the axial and appendicular skeletal.

14. List and describe two types of ossification.

15. Explain the major components that make up a monosynaptic reflex arc.

16. Explain the major steps that occur during an action potential and the propagation of a nerve impulse.

17. Explain the levels of organization found within a muscle. Start at the organ level and move to the smallest.

18. Describe osmosis and explain the terms hypertonic, hypotonic, and isotonic.

19. Differentiate between the central and peripheral nervous system.

20. Explain how the Na/K pump generates membrane potential.

21. List the four major types of macroorganic molecules and provide examples and functions for each.

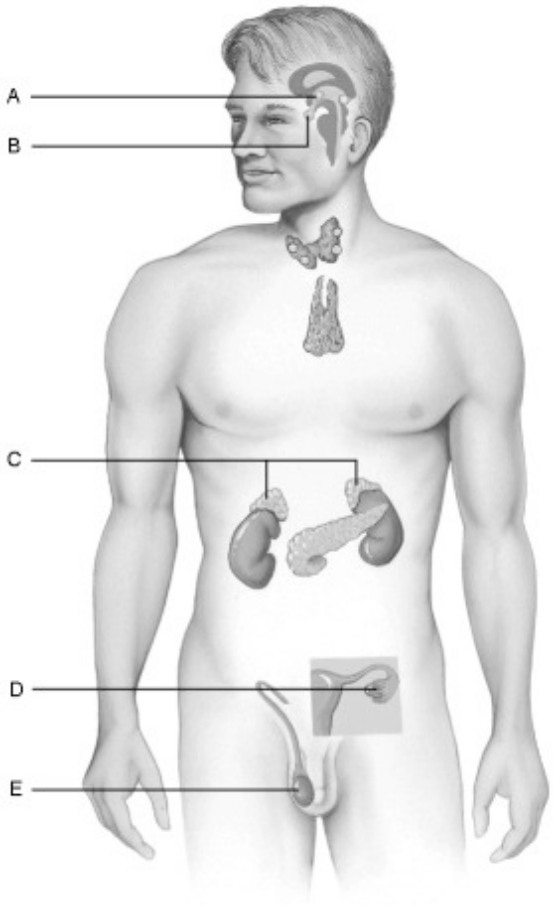
22. Sketch a person in anatomical position. Label the major anatomic directional terms on your sketch.

23. Sketch and label a schematic diagram of the cell cycle.

24. Sketch and label the major portions of the human brain. Include the dura, pia, and arachnoid mater.

25. Explain the major cells types found within the peripheral and central nervous system.

26. Identify the following endocrine glands, list the hormones produced by each gland, and list the target for each hormone.



A.

B.

C.

D.

E.

27. Five other glands are shown in the diagram above that aren't identified by a letter. List each of the glands and list the hormone(s) produced by each.

1.

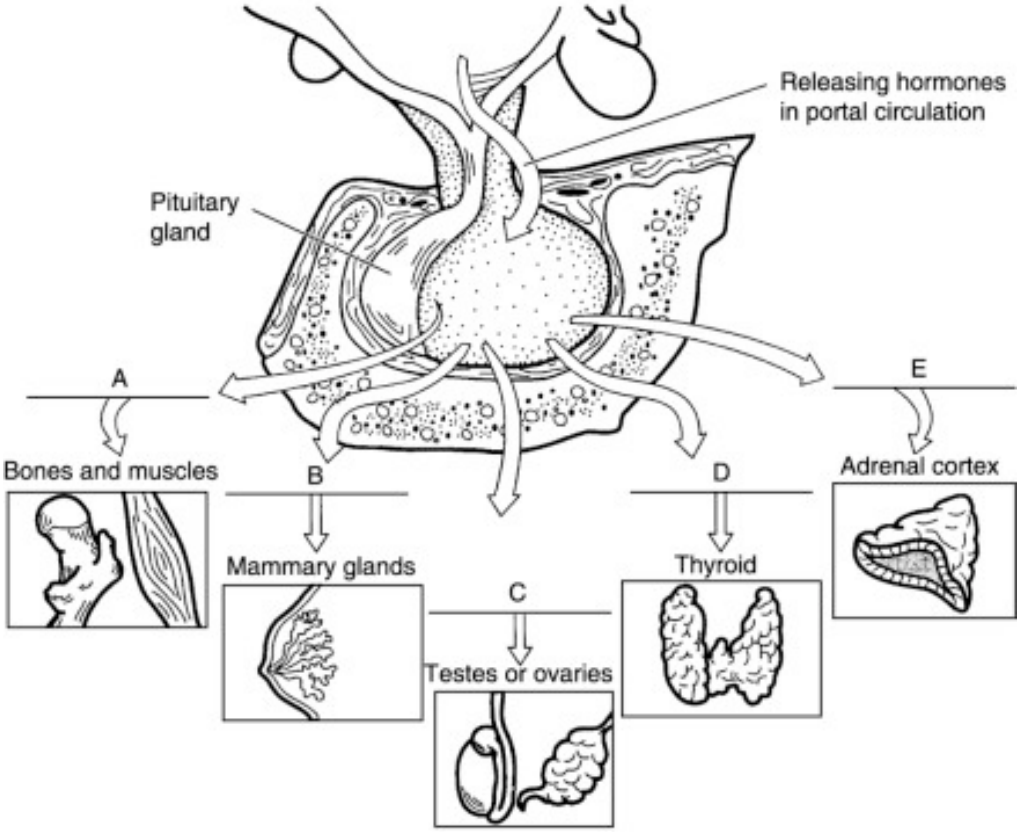
2.

3.

4.

5.

28. Identify the anterior pituitary hormones that targets the organs/glands shown in the diagram.



A.

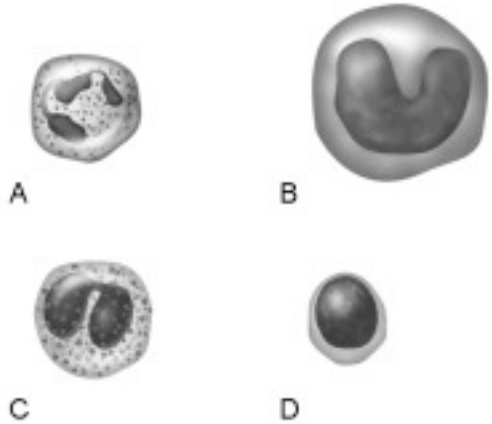
B.

C.

D.

E.

29. Identify the four leukocytes shown below. List a function for each.



A.

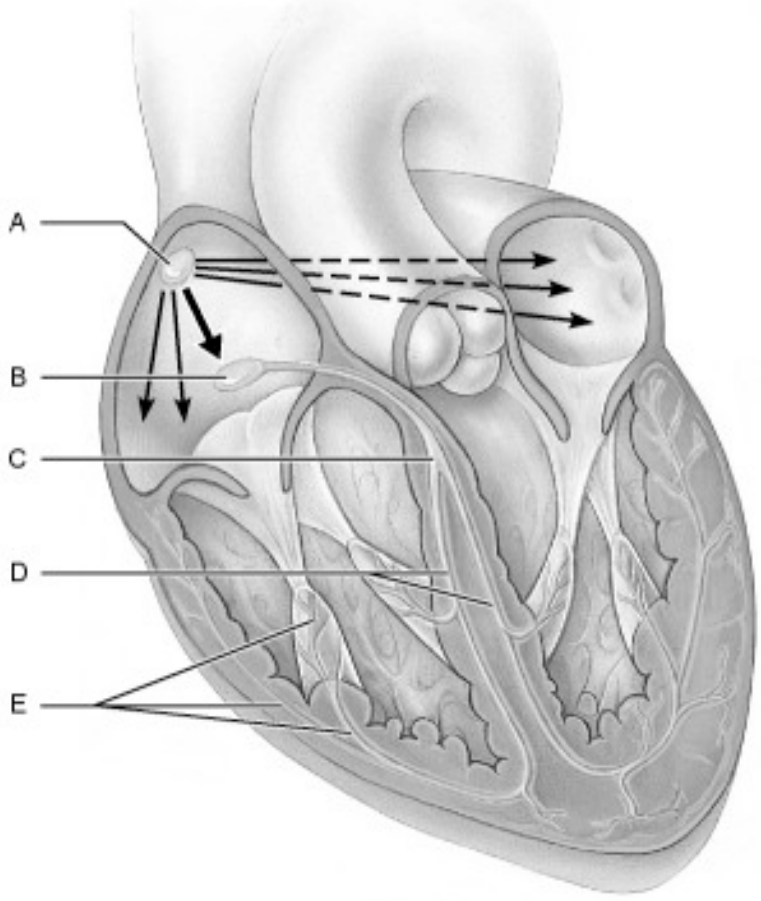
B.

C.

D.

E. Name the missing leukocyte and its function:

30. In the heart diagram below, identify the structures involved in the conduction of signals through the heart.



A.

B.

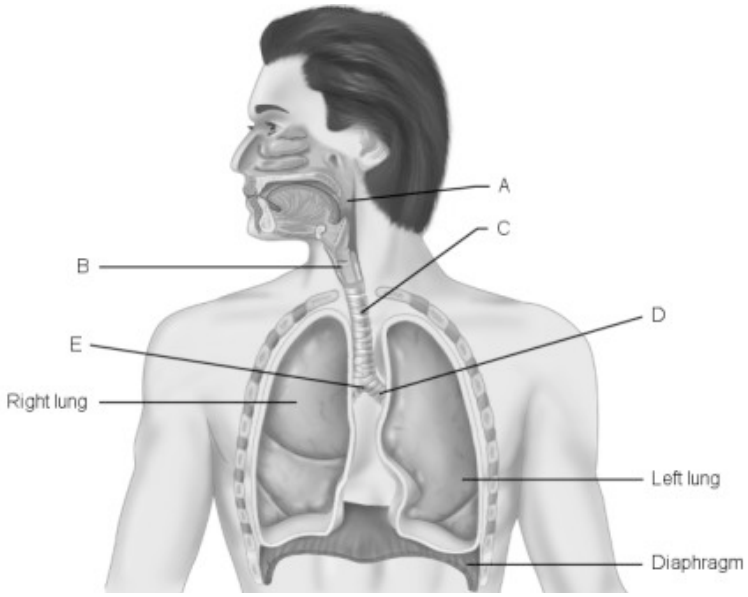
C.

D.

E.

31. Label the diagram of the heart above with the following terms: left atrium, left ventricle, right atrium, right ventricle, right A-V valve, left A-V valve, and interventricular septum.

32. Identify the respiratory structures in the diagram below.



A.

B.

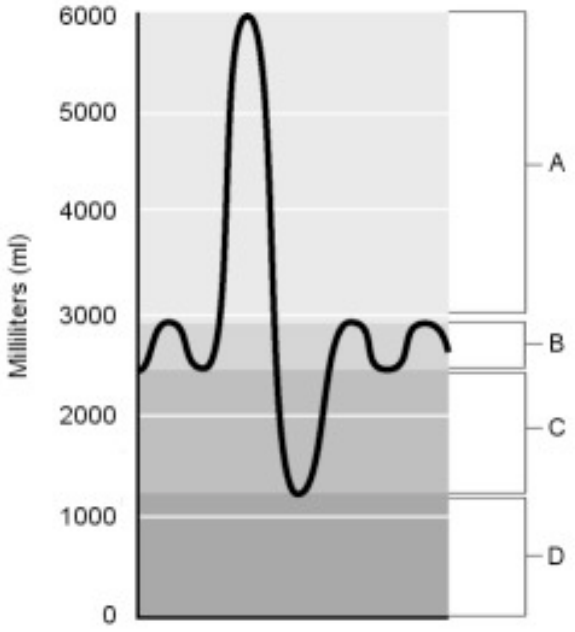
C.

D.

E. Carina of the trachea (You don't need to know this for the final.)

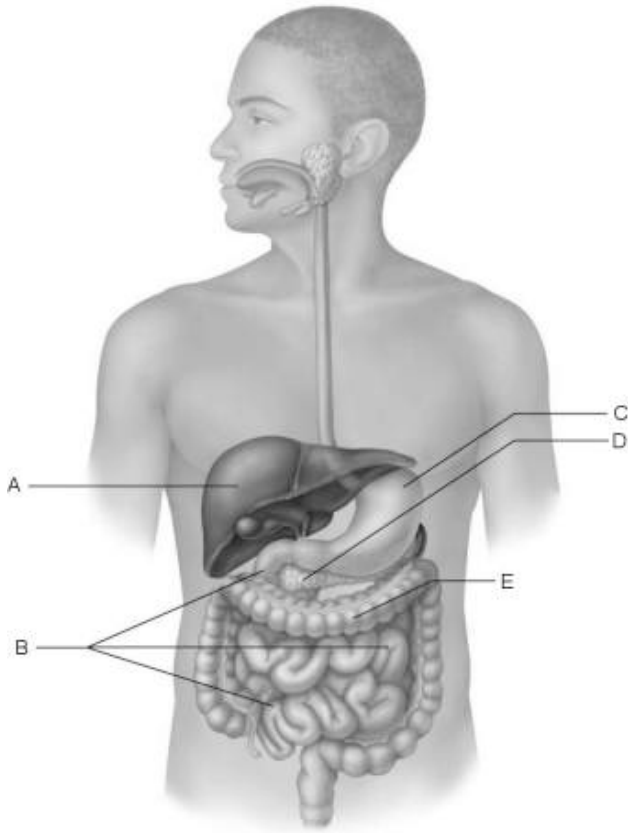
33. Explain the mechanisms of inspiration, that is, inhalation of air into the lungs.

34. Label each of the various respiratory volumes in the diagram below. Identify the volumes that make up Vital Capacity



35. Explain how oxygen and carbon dioxide are transported in the blood.

36. Identify the following organs of the digestive system. For each organ, list at least one function.



A.

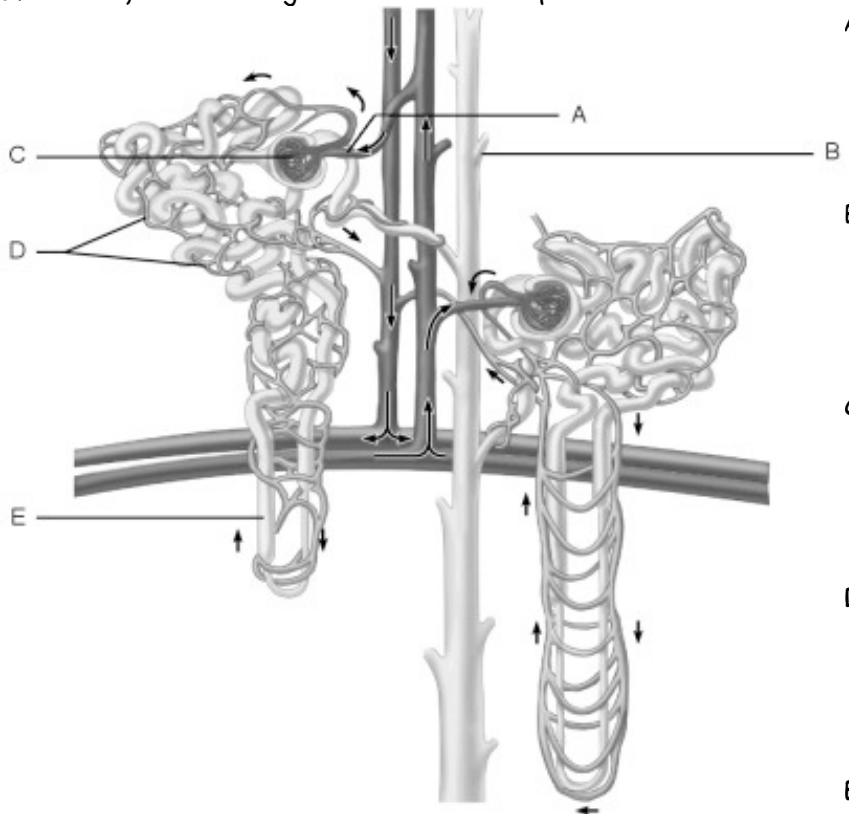
B.

C.

D.

E.

37. Identify the following structure of the nephron. Circle the structure that responds to ADH.



A.

B.

C.

D.

E.

Final Exam Study Guide

Units 1-16

1. abdominopelvic cavity
2. acid
3. actin
4. action potential
5. active vitamin D
6. ADH
7. adipose tissue
8. adrenaline
9. adrenocorticotropic hormone
10. afferent nerves
11. agglutination
12. alpha cells of pancreas
13. alveoli
14. amino acids
15. amphiarthrotic joint
16. amylase
17. anatomical position
18. anatomy
19. androgens
20. angiotensin
21. antibody classes
22. appendix
23. arachnoid mater
24. areolar tissue
25. arteries
26. arterioles
27. atomic mass
28. auditory tube
29. auricle
30. autonomic nervous system
31. AV bundle
32. AV node
33. axon terminal
34. axons
35. base
36. basophils
37. beta cells of pancreas
38. bicarbonate
39. bicuspid valve
40. bile
41. blastocyst
42. blood cell antigens
43. blood pH
44. brain stem
45. brush border enzymes
46. bulbourethral gland
47. Ca^{2+}
48. calcaneus
49. calcitonin
50. canaliculi
51. capillaries
52. carbohydrates
53. carbonic acid

54. cardiac muscle tissue
55. cardioesophageal sphincter
56. cartilaginous joint
57. cecum
58. cell cycle phases
59. cell membrane
60. central nervous system
61. cerebellum
62. cerebral aqueduct
63. chemotaxis
64. chordae tendineae
65. choroid layer
66. cilia
67. coagulation
68. cochlea
69. collecting duct
70. colon
71. connective tissue
72. cornea
73. corpus callosum
74. corpus luteum
75. cortisol
76. covalent bonds
77. creatine phosphate
78. cutaneous membrane
79. cytoplasm
80. dendrites
81. desmosomes
82. diapedesis
83. diencephalon
84. diploid cell
85. disaccharides
86. distal convoluted tubule
87. DNA base pairing rules
88. DNA replication
89. dorsal cavity
90. ductus deferens
91. duodenum
92. dura mater
93. dynamic equilibrium
94. ear ossicles
95. eccrine glands
96. efferent nerves
97. electrons
98. endocrine system
99. endocytosis
100. endometrium
101. enzymes
102. eosinophils
103. epidermis
104. epididymis
105. epiglottis
106. epinephrine
107. epiphyseal plate
108. epithelial tissue
109. erythropoietin (EPO)
110. esophagus

111. estrogen
112. exocytosis
113. expiratory reserve volume
114. facilitated diffusion
115. fascicle
116. fats
117. fertilization
118. fever
119. fibrous joint
120. fibrous tunic of eye
121. formed elements of blood
122. fourth ventricle of brain
123. fovea centralis
124. FSH
125. gallbladder
126. gap junctions
127. gastrin
128. glomerulus
129. glottis
130. glucagon
131. glucocorticoids
132. Golgi apparatus
133. gout
134. Graafian follicle
135. growth hormone
136. haploid cell
137. Haversian canals
138. HCl
139. hematopoiesis
140. homeostasis
141. human chorionic gonadotropin
142. hydrogen bonds
143. hydrostatic pressure
144. hypertonic
145. hypothalamus
146. hypotonic
147. ileocecal valve
148. incus
149. inflammatory response
150. inspiratory reserve volume
151. insulin
152. interatrial septum
153. interferon
154. interstitial cells of testis
155. interstitial fluid
156. interventricular septum
157. ionic bonds
158. iris
159. irritability
160. isotonic
161. isotope
162. keratin
163. lacunae
164. lamellae
165. larynx
166. lateral ventricles of brain
167. left atrium

168. left ventricle
169. leukocytes
170. levels of organization in the body
171. LH
172. lipid bilayer
173. lipids
174. liver
175. loop of Henle (nephron loop)
176. lymph
177. lymphocytes
178. malleus
179. mediastinum
180. medulla oblongata
181. melanin
182. melatonin
183. metacarpals
184. metatarsals
185. microvilli
186. midbrain
187. mineralocorticoids
188. monocytes
189. monosaccharides
190. morula
191. motor division of nervous system
192. motor unit
193. mucous membrane
194. muscle fiber (cell)
195. muscle tissue
196. myelinated axon
197. myofibril
198. myofilament
199. myometrium
200. myosin
201. natural killer cells
202. negative feedback mechanisms
203. nervous tissue
204. neurolemma
205. neuromuscular junction
206. neurotransmitter
207. neutrons
208. neutrophils
209. nucleic acids
210. osmotic pressure
211. ossification
212. osteoarthritis
213. osteoblasts
214. osteoclast
215. osteocytes
216. osteoporosis
217. oval window
218. ovary
219. ovum
220. oxyhemoglobin
221. oxytocin
222. pancreas
223. parasympathetic nervous system
224. pepsin

225. pepsinogens
226. perforins
227. pericardium
228. periosteum
229. peripheral nervous system
230. peritoneum
231. Peyer's patches
232. phagocytes
233. phagocytosis
234. phalanges
235. physiology
236. pia mater
237. pineal gland
238. pinocytosis
239. pituitary gland
240. plasma of blood
241. platelets
242. pleura
243. polar covalent bonds
244. polysaccharides
245. primary bronchi
246. primary oocyte
247. progesterone
248. prolactin
249. proteins
250. protons
251. proximal convoluted tubule
252. pseudostratified epithelium
253. PTH
254. pulmonary artery
255. pulmonary circuit of blood flow
256. pulmonary veins
257. pupil
258. Purkinje fibers
259. pyloric sphincter
260. radioisotope
261. rectum
262. relaxin
263. renal hilus
264. renin
265. rennin
266. retina
267. ribosomes
268. rickets
269. right atrium
270. right ventricle
271. rough ER
272. round window
273. SA node
274. salivary glands
275. sarcolemma
276. sarcomere
277. satellite cells
278. Schwann cells
279. sclera
280. secondary oocyte
281. secretin

282. self-antigens
283. semicircular canals
284. seminiferous tubules
285. sensory division of nervous system
286. serous membrane
287. sex chromosomes
288. simple cuboidal epithelium
289. simple squamous epithelium
290. skeletal muscle tissue
291. small intestine
292. smooth ER
293. smooth muscle tissue
294. sodium-potassium pump
295. somatic nervous system
296. spermatid
297. spermatogenesis
298. spiral organ of Corti
299. spleen
300. stapes
301. static equilibrium
302. stratified squamous epithelium
303. striated muscle
304. subarachnoid space
305. surfactant
306. sympathetic nervous system
307. synaptic cleft
308. synovial joint
309. systemic circuit of blood flow
310. T3
311. T4
312. talus
313. tarsals
314. testosterone
315. thalamus
316. thoracic cavity
317. thymosin
318. thymus gland
319. thyroid cartilage
320. thyroid gland
321. thyroid hormone
322. tidal volume
323. tight junctions
324. tonsils
325. trabeculae
326. trachea
327. tricuspid valve
328. triglycerides
329. tropomyosin
330. troponin
331. tubular reabsorption
332. tubular secretion
333. universal blood donor
334. universal blood recipient
335. ureter
336. urethra
337. uterine tube (fallopian tube)
338. vagina

339. vasopressin
340. veins
341. vena cava
342. vestibule of inner ear
343. villi
344. vital capacity
345. Volkmann's canals (perforating canals)
346. voluntary vs. involuntary muscle tissue
347. XX
348. XY
349. yellow marrow
350. Z-disc
351. zygote