

Practice Questions – Respiratory, Digestive, Urinary Systems

Note: choices may be used more than once or not at all.

1-5. Matching

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|----------------|----------------------------------|-----------------|
| A) High oxygen | systemic veins | 1) <u> B </u> |
| B) Low oxygen | pulmonary veins | 2) <u> A </u> |
| | pulmonary arteries | 3) <u> B </u> |
| | air in trachea during inhalation | 4) <u> A </u> |
| | air in trachea during exhalation | 5) <u> B </u> |

6-10. Matching

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|-----------------------|---|------------------|
| A) Normal inspiration | involves abdominal oblique muscles | 6) <u> D </u> |
| B) Normal expiration | involves internal intercostals muscles | 7) <u> D </u> |
| C) Forced inspiration | involves a small negative pulmonary pressure | 8) <u> A </u> |
| D) Forced expiration | depends mainly on contraction of diaphragm muscles | 9) <u> A </u> |
| E) None of these | depends mainly on recoil of elastic tissue in the lungs | 10) <u> B </u> |

11-15. Matching

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|--------------------|---|------------------|
| A) Visceral pleura | covers the lungs | 11) <u> A </u> |
| B) Parietal pleura | lines the pleural cavities | 12) <u> B </u> |
| C) A and B | surrounds the pleural fluid | 13) <u> C </u> |
| D) None of these | covers the outside of the pericardial sac | 14) <u> B </u> |
| | composed of simple squamous epithelium | 15) <u> C </u> |

16-20. Matching

- | | | |
|---------------|---|------------------|
| A) Inhalation | involves a negative pulmonary pressure | 16) <u> A </u> |
| B) Exhalation | involves recoil of elastic tissue in the lungs | 17) <u> B </u> |
| | involves contraction of diaphragm muscles | 18) <u> A </u> |
| | visceral pleura of the lungs pulls on the parietal pleura | 19) <u> B </u> |
| | parietal pleura pulls on the visceral pleura of the lungs | 20) <u> A </u> |

21-25. Matching

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|------------------------------------|------------------------------------|------------------|
| A) Contains "C" rings of cartilage | trachea | 21) <u> A </u> |
| B) Contains plates of cartilage | alveolar duct | 22) <u> C </u> |
| C) Contains no cartilage | terminal bronchioles | 23) <u> C </u> |
| | respiratory bronchioles | 24) <u> C </u> |
| | intrapulmonary (segmental) bronchi | 25) <u> B </u> |

26-30. Matching

- | | | |
|--|------------|------------------|
| A) Contains pseudostratified ciliated columnar epithelium (PCCE) | alveoli | 26) <u> D </u> |
| B) Contains stratified squamous epithelium | trachea | 27) <u> A </u> |
| C) Contains simple columnar epithelium | stomach | 28) <u> C </u> |
| D) Contains simple squamous epithelium | intestines | 29) <u> C </u> |
| | esophagus | 30) <u> B </u> |

31-35. Place the following in the order that air moves through the airways; starting in the mouth.

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|---------------------------------------|--------|--------------|
| A) Alveoli | first | 31) <u>D</u> |
| B) Trachea | second | 32) <u>B</u> |
| C) Bronchioles | third | 33) <u>E</u> |
| D) Glottis of larynx | fourth | 34) <u>C</u> |
| E) Intrapulmonary (segmental) bronchi | fifth | 35) <u>A</u> |

36-40. Matching

- | | | |
|--------------------------|--|--------------|
| A) Pulmonary capillaries | fluid leaks out of the blood | 36) <u>C</u> |
| B) Systemic capillaries | oxygen moves from the blood into cells | 37) <u>B</u> |
| C) A and B | oxygen moves from alveoli into the blood | 38) <u>A</u> |
| D) None of these | carbon dioxide moves from cells into the blood | 39) <u>B</u> |
| | carbon dioxide moves from the blood into the alveoli | 40) <u>A</u> |

41-45. Place in order the structures through which food pass.

- | | | |
|----------------------------|--------|--------------|
| A) Jejunum | first | 41) <u>C</u> |
| B) Ileocecal valve | second | 42) <u>D</u> |
| C) Cardiac sphincter | third | 43) <u>A</u> |
| D) Pyloric sphincter | fourth | 44) <u>B</u> |
| E) Internal anal sphincter | fifth | 45) <u>E</u> |

46-50. Place in order the structures through which food pass.

- | | | |
|-------------|--------|--------------|
| A) Ileum | first | 46) <u>C</u> |
| B) Cecum | second | 47) <u>E</u> |
| C) Pylorus | third | 48) <u>D</u> |
| D) Jejunum | fourth | 49) <u>A</u> |
| E) Duodenum | fifth | 50) <u>B</u> |

51-55. Matching

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|--------------------|-----------------------------------|--------------|
| A) Small intestine | produces bile | 51) <u>E</u> |
| B) Parotid gland | contains the haustrae | 52) <u>D</u> |
| C) Pancreas | contains the taenia coli | 53) <u>D</u> |
| D) Colon | contains the plicae circularis | 54) <u>A</u> |
| E) Liver | major source of digestive enzymes | 55) <u>C</u> |

56-60. Matching

- | | | |
|-----------------------|---------------------------|--------------|
| A) Produce pepsinogen | pancreas | 56) <u>B</u> |
| B) Produce enzymes | chief cells of stomach | 57) <u>A</u> |
| C) Produce mucus | parietal cells of stomach | 58) <u>D</u> |
| D) Produce HCl | duodenal glands | 59) <u>C</u> |
| E) None of the above | intestinal glands | 60) <u>B</u> |

61-65. Matching

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|--------------|--|--------------|
| A) Peptidase | emulsifies fats | 61) <u>E</u> |
| B) Amylase | breaks down fats in intestine | 62) <u>D</u> |
| C) Pepsin | breaks down protein in stomach | 63) <u>C</u> |
| D) Lipase | breaks down carbohydrates in mouth and intestine | 64) <u>B</u> |
| E) Bile | breaks down small proteins to amino acids in intestine | 65) <u>A</u> |

66-70. Matching

- | | | |
|---------------------|--------------------------------------|--------------|
| A) Chief cells | produce mucus in the small intestine | 66) <u>C</u> |
| B) Parietal cells | produce mucus in the stomach | 67) <u>D</u> |
| C) Duodenal glands | produce hydrochloric acid | 68) <u>B</u> |
| D) Mucus neck cells | are in the submucosa | 69) <u>C</u> |
| E) A, B, and D | produce pepsinogen | 70) <u>A</u> |

71-75. Matching

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|-------------------------------------|--|--------------|
| A) Outer longitudinal smooth muscle | responsible for producing mucus | 71) <u>E</u> |
| B) Inner circular smooth muscle | responsible for absorbing nutrients | 72) <u>C</u> |
| C) Digestive epithelium | responsible for shortening of GI tract | 73) <u>A</u> |
| D) Lamina propria | responsible for connecting epithelium | 74) <u>D</u> |
| E) Goblet cells | responsible for constriction of GI tract | 75) <u>B</u> |

76-80. Matching

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|------------------------------|---|--------------|
| A) Elastic connective tissue | found in intestinal villi | 76) <u>B</u> |
| B) Smooth muscle | found around the alveoli | 77) <u>A</u> |
| C) None of the above | found under the visceral pleura of the lungs | 78) <u>A</u> |
| | found in the submucosa of the digestive tract | 79) <u>C</u> |
| | found in the submucosa of the respiratory airways | 80) <u>B</u> |

81-85. Matching

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|--|---------------------|--------------|
| A) Epithelium is pseudostratified ciliated columnar (PCCE) | stomach | 81) <u>D</u> |
| B) Epithelium is stratified squamous | duodenum | 82) <u>D</u> |
| C) Epithelium is simple squamous | esophagus | 83) <u>B</u> |
| D) Epithelium is simple columnar | Thin loop of Henle | 84) <u>C</u> |
| E) Epithelium is simple cuboidal | Thick loop of Henle | 85) <u>E</u> |

86-90. Matching

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|---------------------------|--------------------------------|--------------|
| A) Found in renal medulla | renal columns | 86) <u>A</u> |
| B) Found in renal cortex | renal corpuscles | 87) <u>B</u> |
| C) Found in renal hilus | renal pelvis ureter | 88) <u>C</u> |
| D) None of the above | interlobular arteries | 89) <u>B</u> |
| | papillae of pyramids | 90) <u>A</u> |

91-95. Place in order the vessels through which renal blood passes.

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|----------------------------|--------|--------------|
| A) Efferent arteriole | first | 91) <u>C</u> |
| B) Afferent arteriole | second | 92) <u>B</u> |
| C) Interlobular arteries | third | 93) <u>E</u> |
| D) Peritubular capillaries | fourth | 94) <u>A</u> |
| E) Glomerular capillaries | fifth | 95) <u>D</u> |

96-100. Place in order the structures through which urinary filtrate passes.

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|---|--------|---------------|
| A) Descending limb of the loop of Henle | first | 96) <u>C</u> |
| B) Ascending limb of the loop of Henle | second | 97) <u>A</u> |
| C) Proximal convoluted tubule | third | 98) <u>B</u> |
| D) Distal convoluted tubule | fourth | 99) <u>D</u> |
| E) Collecting tubule | fifth | 100) <u>E</u> |

101-105. Matching

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|---|---|------------|
| A) Simple cuboidal epithelium with microvilli | ureter | 101) __D__ |
| B) Simple squamous epithelium | capsular epithelium | 102) __B__ |
| C) Simple cuboidal epithelium | glomerular epithelium | 103) __B__ |
| D) Transitional epithelium | proximal convoluted tubules | 104) __A__ |
| | thick ascending limb of the loop of Henle | 105) __C__ |

106-110. Matching

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|----------------------|--|------------|
| A) Water | absorbed into capillaries around Proximal Convoluted Tubules | 106) __D__ |
| B) Sodium | absorbed into capillaries around loop of Henle | 107) __D__ |
| C) Blood cells | filtered out of capillaries of renal corpuscles | 108) __D__ |
| D) A and B | absorbed into capillaries of intestinal villi | 109) __D__ |
| E) None of the above | usually kept in glomerular capillaries | 110) __C__ |

111-115. Matching

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|---------------------------------|--|------------|
| A) Collecting tubules and ducts | produce a renal hormone | 111) __C__ |
| B) Distal convoluted tubule | detect sodium in the distal convoluted tubules | 112) __D__ |
| C) Juxtaglomerular cells | located in the tunica media of the afferent arteriole | 113) __C__ |
| D) Macula densa | water is reabsorbed into capillaries in response to vasopressin | 114) __A__ |
| E) None of these | sodium is reabsorbed into capillaries in response to aldosterone | 115) __B__ |

116-120. Matching

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|---|------------------------------|------------|
| A) Filtrate is reabsorbed into capillaries from the _____ | glomerulus | 116) __B__ |
| B) Filters blood in kidney | loop of Henle | 117) __A__ |
| C) None of the above | distal convoluted tubule | 118) __A__ |
| | proximal convoluted tubule | 119) __A__ |
| | collecting tubules and ducts | 120) __A__ |