**Chapter 13 Pre-Test A**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*



**\_\_\_\_ 1. Use the diagram above to answer the next question.**

In the diagram above, the afferent arteriole is numbered

|  |  |
| --- | --- |
| **a.** | 3. |
| **b.** | 4. |
| **c.** | 6. |
| **d.** | 9. |

**\_\_\_\_ 2. Use the diagram above to answer the next question.**

In the diagram above, the proximal convoluted tubule is numbered

|  |  |
| --- | --- |
| **a.** | 5. |
| **b.** | 6. |
| **c.** | 7. |
| **d.** | 8. |

**\_\_\_\_ 3. Use the diagram above to answer the next question.**

In the diagram above, the site where glucose is reabsorbed is at location

|  |  |
| --- | --- |
| **a.** | 5. |
| **b.** | 6. |
| **c.** | 7. |
| **d.** | 8. |

**\_\_\_\_ 4. Use the diagram above to answer the following question.**

Which of the following present in structure 5, are responsible for increasing reabsorption?

|  |  |
| --- | --- |
| I | lipids |
| II | mitochondria |
| III | transport proteins |

|  |  |
| --- | --- |
| **a.** | I and II only  |
| **b.** | I and III only  |
| **c.** | II and III only |
| **d.** | I, II and III |

**\_\_\_\_ 5. Use the diagram above to answer the next question.**

Which of the following substances is excreted at location 6?

|  |  |
| --- | --- |
| **a.** | glucose |
| **b.** | penicillin |
| **c.** | red blood cells |
| **d.** | white blood cells |

**\_\_\_\_ 6.** Which of the following rows correctly matches the part of the nephron with its excretory function?

|  |  |  |
| --- | --- | --- |
| **Row** | **Structures of the Nephron** | **Function** |
| A. | glomerulus | passive transport of solutes |
| B. | collecting duct | reception of glomerular filtrate |
| C. | descending loop of Henle | active reabsorption of sodium ions |
| D. | proximal convoluted tubule | active reabsorption of glucose molecules |

|  |  |
| --- | --- |
| **a.** | A |
| **b.** | B |
| **c.** | C |
| **d.** | D |

**\_\_\_\_ 7.** Which of the following structures has both a urinary and reproductive function in males?

|  |  |
| --- | --- |
| **a.** | ureter |
| **b.** | urethra |
| **c.** | nephron |
| **d.** | urinary bladder |



**\_\_\_\_ 8. Use the diagram above to answer the next question.**

Which component is responsible for carrying urine to the urinary bladder?

|  |  |
| --- | --- |
| **a.** | 1 |
| **b.** | 2 |
| **c.** | 3 |
| **d.** | 4 |



**\_\_\_\_ 9. Use the diagram above to answer the next question**

Which comparison of the blood in vessel 1 and 2 is correct?

|  |  |  |
| --- | --- | --- |
|  | **Vessel 1** | **Vessel 2** |
| A | lower urea and glucose | higher urea and glucose |
| B | higher urea and glucose | lower urea and glucose |
| C | lower urea/ higher glucose | higher urea/lower glucose |
| D | higher urea/lower glucose | lower urea/higher glucose |

|  |  |
| --- | --- |
| **a.** | A |
| **b.** | B |
| **c.** | C |
| **d.** | D |



**\_\_\_\_ 10. Use the diagram above to answer the next question.**

The numbers 1, 2, 3, and 4 represent the sequence of four processes that are crucial during urine formation. At which step is a plasma-like filtrate of blood created?

|  |  |
| --- | --- |
| **a.** | 1 |
| **b.** | 2 |
| **c.** | 3 |
| **d.** | 4 |



**\_\_\_\_ 11. Use the diagram above to answer the next question.**

At which location would the fluids most resemble the composition of urine?

|  |  |
| --- | --- |
| **a.** | 1 |
| **b.** | 2 |
| **c.** | 3 |
| **d.** | 4 |

**\_\_\_\_ 12. Use the diagram above to answer the next question.**

Which one of the following substances opens aquaporin channels in structure number 4 when solutes in blood are too high?

|  |  |
| --- | --- |
| **a.** | aldosterone |
| **b.** | sodium ions |
| **c.** | hydrogen ions |
| **d.** | antidiuretic hormone |

**\_\_\_\_ 13.** Which of the following substances will **not** usually pass through the glomerulus?

|  |  |
| --- | --- |
| **a.** | ions |
| **b.** | water |
| **c.** | hemoglobin |
| **d.** | amino acids |

**\_\_\_\_ 14.** Which component of the filtrate, when reabsorbed, contributes most to the decrease in volume as urine forms?

|  |  |
| --- | --- |
| **a.** | water |
| **b.** | glucose |
| **c.** | amino acids |
| **d.** | sodium ions |

**\_\_\_\_ 15.** At which location in the nephron do substances like creatinine, penicillin and other drugs enter the filtrate?

|  |  |
| --- | --- |
| **a.** | loop of Henle |
| **b.** | collecting tubules |
| **c.** | distal convoluted tubules |
| **d.** | proximal convoluted tubules |

**\_\_\_\_ 16.** Which region of the nephron would be most impacted by hypotension?

|  |  |
| --- | --- |
| **a.** | loop of Henle |
| **b.** | collecting duct |
| **c.** | Bowman’s capsule |
| **d.** | proximal convoluted tubule |

**\_\_\_\_ 17.** What is the function of antidiuretic hormone?

|  |  |
| --- | --- |
| **a.** | to change the blood pH |
| **b.** | to stimulate urine production |
| **c.** | to transport blood to the kidneys |
| **d.** | to control the concentration of the urine |

**\_\_\_\_ 18.** In which procedure is blood pumped from the renal artery to an artificial membrane in an external device and then returned to the body by way of the renal vein?

|  |  |
| --- | --- |
| **a.** | urinalysis |
| **b.** | hemodialysis |
| **c.** | kidney transplant |
| **d.** | removal of kidney stones |

**\_\_\_\_ 19.** Antidiuretic hormone (ADH) is **produced** in the

|  |  |
| --- | --- |
| **a.** | kidneys. |
| **b.** | hypothalamus. |
| **c.** | adrenal medulla. |
| **d.** | posterior pituitary. |

**\_\_\_\_ 20.** Which of these substances is **not** normally found in urine?

|  |  |
| --- | --- |
| **a.** | urea |
| **b.** | glucose |
| **c.** | uric acid |
| **d.** | creatinine |



**\_\_\_\_ 21. Use the diagram above to answer the next question.**

The structures that transport urine are numbered

|  |  |
| --- | --- |
| **a.** | 2 and 3. |
| **b.** | 3 and 9. |
| **c.** | 4 and 5. |
| **d.** | 7 and 10. |



**\_\_\_\_ 22. Use the diagram above to answer the next question.**

If the substance above is detected in urine, which of the following processes occurred?

|  |  |
| --- | --- |
| **a.** | Urine formed normally. |
| **b.** | Selective reabsorption was insufficient. |
| **c.** | Tubular excretion was greater than normal. |
| **d.** | The tonicity of the renal medulla was lower than normal. |

**\_\_\_\_ 23.** Which of the following blood pH would cause higher levels of bicarbonate to be excreted?

|  |  |
| --- | --- |
| **a.** | 6.6 |
| **b.** | 7.0 |
| **c.** | 7.4 |
| **d.** | 8.0 |

**\_\_\_\_ 24.** Under which of the following conditions would the largest quantity of  be excreted?

|  |  |
| --- | --- |
| **a.** | low blood pressure and low blood pH |
| **b.** | low blood pressure and high blood pH |
| **c.** | high blood pressure and low blood pH |
| **d.** | high blood pressure and high blood pH |

**\_\_\_\_ 25.** Under which of the following conditions would the largest quantity of  be excreted?

|  |  |
| --- | --- |
| **a.** | low blood pressure and low blood pH |
| **b.** | low blood pressure and high blood pH |
| **c.** | high blood pressure and low blood pH |
| **d.** | high blood pressure and high blood pH |

**Chapter 13 Pre-Test A**

**Answer Section**

**MULTIPLE CHOICE**

 **1.** ANS: A PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-2 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **2.** ANS: A PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-2 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **3.** ANS: A PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-2 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **4.** ANS: C PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-2 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **5.** ANS: B PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **6.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **7.** ANS: B PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-1 TOP: 13.1

KEY: Urinary System

 **8.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **9.** ANS: B PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-5 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **10.** ANS: A PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **11.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **12.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-7 TOP: 13.3

KEY: Kidney Function Regulation

 **13.** ANS: C PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **14.** ANS: A PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **15.** ANS: C PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **16.** ANS: C PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **17.** ANS: D PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-7 TOP: 13.3

KEY: Kidney Function Regulation

 **18.** ANS: B PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C-S TOP: 13.4

KEY: Urinary System Disorders

 **19.** ANS: B PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-6 TOP: 13.3

KEY: Kidney Function Regulation

 **20.** ANS: B PTS: 1 DIF: K REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **21.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-1 TOP: 13.1

KEY: Urinary System

 **22.** ANS: B PTS: 1 DIF: HMP REF: 13

OBJ: Urinary System LOC: C13-3 TOP: 13.2

KEY: Anatomy Kidney Excretion

 **23.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-4 TOP: 13.3

KEY: Kidney Function Regulation

 **24.** ANS: D PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-4 TOP: 13.3

KEY: Kidney Function Regulation

 **25.** ANS: C PTS: 1 DIF: U REF: 13

OBJ: Urinary System LOC: C13-4 TOP: 13.3

KEY: Kidney Function Regulation