

Practice Questions Ch 10: (Kidney Physiology) Updated 12/7/22

1. ADH promotes water retention by stimulating
 - A. NaCl reabsorption in proximal convoluted tubule.
 - B. NaCl reabsorption in ascending loop of Henle.
 - C. NaCl reabsorption in collecting duct.
 - D. NaCl reabsorption in the distal convoluted tubule.
 - E. Water reabsorption in collecting duct.
 - F. Water reabsorption in descending loop of Henle.
 - G. Water reabsorption in proximal convoluted tubule.
 - H. Water reabsorption in distal convoluted tubule.
2. Aldosterone first stimulates
 - A. NaCl reabsorption in proximal convoluted tubule.
 - B. NaCl reabsorption in ascending loop of Henle.
 - C. NaCl reabsorption in collecting duct.
 - D. NaCl reabsorption in the distal convoluted tubule.
 - E. Water reabsorption in collecting duct.
 - F. Water reabsorption in descending loop of Henle.
 - G. Water reabsorption in proximal convoluted tubule.
 - H. Water reabsorption in distal convoluted tubule.
3. About 65% of the filtrate within the nephron is automatically reabsorbed in the
 - A. proximal convoluted tubule.
 - B. distal convoluted tubule.
 - C. collecting duct.
 - D. ascending loop of Henle.
 - E. descending loop of Henle.
4. Diuretic drugs that act in the loop of Henle work primarily first by
 - A. inhibiting NaCl transport.
 - B. inhibiting water transport.
 - C. inhibiting K⁺ transport.
 - D. inhibiting Ca²⁺ transport.
5. Glucosuria
 - A. occurs normally.
 - B. indicates the presence of kidney disease.
 - C. occurs when the glucose receptors in the proximal convoluted tubule become saturated.
 - D. occurs because of increased blood glucagon.
6. Parasympathetic regulation causes
 - A. constriction of the proximal urethral sphincter.
 - B. relaxation of the proximal urethral sphincter.
 - C. constriction of the detrusor muscle.
 - D. relaxation of the detrusor muscle.
 - E. answers A & C
 - F. answers B & C
 - G. answers B & D
 - H. answers A & D
7. Sympathetic regulation causes
 - A. constriction of the proximal urethral sphincter.
 - B. relaxation of the proximal urethral sphincter.
 - C. constriction of the detrusor muscle.
 - D. relaxation of the detrusor muscle.
 - E. answers A & C
 - F. answers B & C
 - G. answers B & D
 - H. answers A & D
8. The distal urethral sphincter is under autonomic control.
 - A. TRUE
 - B. FALSE
9. Urolithiasis is
 - A. a disorder of insufficient ADH secretion.
 - B. otherwise known as kidney stones.
 - C. otherwise known as polycystic kidney disease.
 - D. a disorder of excess cortisol secretion by the adrenal cortex.
 - E. a disorder of insufficient aldosterone secretion by the adrenal cortex.

10. Addison's disease is
- A. is a disorder of insufficient ADH secretion.
 - B. otherwise known as kidney stones.
 - C. is otherwise known as polycystic kidney disease.
 - D. is a disorder of excess cortisol secretion by the adrenal cortex.
 - E. a disorder of insufficient aldosterone secretion by the adrenal cortex.
11. An infection of the kidneys is known as _____.
- A. pyelonephritis
 - B. cystitis
 - C. urethritis
 - D. vaginitis
 - E. urolithiasis
12. Binding of _____ on smooth muscle of the bladder detrusor muscle will cause relaxation.
- A. ACh to α -adrenergic receptors
 - B. ACh to β_1 -adrenergic receptors
 - C. ACh to muscarinic cholinergic receptors
 - D. epinephrine to muscarinic cholinergic receptors
 - E. epinephrine to β_2 -adrenergic receptors
 - F. epinephrine to β_3 -adrenergic receptors
13. Inflammation of the bladder is known as
- A. pyelonephritis
 - B. cystitis
 - C. urethritis
 - D. vaginitis
 - E. urolithiasis
14. Systolic blood pressure of 180 mmHg would cause
- A. increased glomerular filtration rate.
 - B. decreased glomerular filtration rate.
 - C. no change in glomerular filtration rate.
15. Increased aldosterone production is known as
- A. Diabetes mellitus.
 - B. Diabetes insipidus.
 - C. Cushing's disease.
 - D. Conn's syndrome.
 - E. Addison's disease.

Ch 10. Answers:

1. E
2. D
3. A
4. A
5. C
6. F
7. H
8. B
9. B
10. E
11. A
12. E & F
13. B
14. A
15. D

How did you do?