

THE EXCRETION

1. The kidneys are located in:

- a. the abdominal cavity;
- b. the pelvic cavity;
- c. the lumbar region;
- d. the iliac fossa;
- e. the chest.

2. The following elements enter the kidney, except:

- a. the ureter;
- b. the renal vein;
- c. the lymphatics;
- d. the renal artery;
- e. the urethra.

3. The following elements exist the kidney, except:

- a. the renal artery;
- b. the interlobular artery;
- c. the renal nerves;
- d. the renal vein;
- e. the ureter.

4. The excretory system consists of:

- a. kidneys;
- b. the ureter;
- c. the bladder;
- d. three portions;
- e. the urethra.

5. The kidney has, on the section:

- a. a central area, the medulla;
- b. a central area, the renal pelvis;
- c. a peripheral area, the cortex;
- d. a central area, the renal sinus;
- e. on the outside, the renal capsule.

6. The renal medulla presents, on the section:

- a. pyramid formations;
- b. Bowman's capsule;
- c. Malpighi pyramids;
- d. renal glomeruli;
- e. minor renal calyces.

7. Malpighi renal pyramids are characterized by the following:

- a. they are triangular;
- b. they are located in the renal medulla;
- c. their top is orientated towards the renal sinus;
- d. they are three in number;

e. they open in the major renal calyces.

8. The renal cortex contains:

- a. renal corpuscles;
- b. Malpighi pyramids;
- c. the renal papilla;
- d. uriniferous tubules;
- e. the loop of Henle.

9. The nephron is characterized by:

- a. it is the anatomical unit of the kidney;
- b. it is the functional unit of the kidney;
- c. it has two components;
- d. it has a length of 10-11 cm;
- e. it includes the Malpighi corpuscles and the uriniferous tubule.

10. The nephron components are:

- a. the minor calyces;
- b. the renal corpuscle;
- c. the renal pelvis;
- d. the proximal tubule;
- e. the loop of Henle.

11. The segments of the uriniferous tubule are:

- a. the proximal convoluted tubule;
- b. the loop of Henle;
- c. the distal convoluted tubule;
- d. the renal corpuscle;
- e. the renal glomerulus.

12. The renal glomerulus has the following characteristics:

- a. it is a ball composed of capillary sanguine vessels;
- b. an afferent arteriole reaches it;
- c. an efferent arteriole departs from it;
- d. it is located in the medulla;
- e. it has a role in the production of the primary urine.

13. The renal proximal convoluted tubule:

- a. is located in the cortex;
- b. continues with the distal convoluted tubule;
- c. is the first segment of the uriniferous tubule;
- d. it crosses the medulla;
- e. it is composed of the cylindrical brush border epithelium.

14. In the nephron, the loop of Henle:

- a. continues the proximal convoluted tubule;
- b. has a descending arm;
- c. has an ascending arm;
- d. continues with the collecting tubule;

e. is located in the renal medulla.

15. The renal veins are characterized by:

- a. they are four in number;
- b. their flow is opposite to the one of the arteries;
- c. the right renal vein flows into the superior vena cava;
- d. the left renal vein flows into the inferior vena cava;
- e. they are formed by the union of the interlobular veins.

16. The urinary tracts are represented by:

- a. the minor and major calyces;
- b. the renal pelvis;
- c. the ureter;
- d. the bladder;
- e. the kidneys.

17. The minor renal calyces:

- a. are located at top of the Malpighi pyramids;
- b. are located in the renal cortex;
- c. their junction forms the major renal calyces;
- d. are located in the renal medulla;
- e. open in the renal pelvis.

18. The major renal calyces are characterized by:

- a. they are formed by the confluence of minor renal calyces;
- b. they are three in number;
- c. their junction forms the renal pelvis;
- d. they surround the renal papilla;
- e. they are located at the top of the Malpighi pyramid.

19. The renal pelvis:

- a. is also called the abdominal pelvis;
- b. is a more dilated duct;
- c. has smooth muscle structure;
- d. continues with the ureter;
- e. is formed by the confluence of major renal calyces.

20. The ureter:

- a. lies between the renal pelvis and the bladder;
- b. is the last segment of the urinary tracts;
- c. is a pair organ;
- d. the urine is accumulated here;
- e. continues with the urethra.

21. The bladder:

- a. is located in the bony pelvis;
- b. is a hollow organ;
- v. has a top portion, the body, where the urine accumulates;
- d. is a pair organ;

e. has a lower portion, the neck, which continues with the ureter.

22. The bladder has:

- a. two sphincters;
- b. a smooth internal sphincter represented by the muscle of the bladder neck;
- c. an external sphincter consisting of a striated muscle;
- d. the external sphincter controlled by the autonomic nervous system;
- e. the internal sphincter controlled voluntarily.

23. The bladder is characterized by:

- a. it is the most dilated portion of the urinary tract;
- b. it accumulates the urine which is continuously brought by the ureters;
- c. it discharges the urine discontinuously, through the act of urination;
- d. the bladder parenchyma has a loose connective tissue;
- e. it progressively fills up until the intraparietal tension reaches a threshold.

24. In men, the urethra is characterized by:

- a. it is a common urinary and genital organ;
- b. it starts in the bladder neck;
- c. it opens at the glans penis;
- d. it is shorter than in women;
- e. it is made up only of striated muscle fibers.

25. The urethra is characterized by:

- a. it has a smooth internal sphincter;
- b. it has an external striated sphincter, at the junction with the ureter;
- c. it is a parenchymal organ;
- d. the internal sphincter is controlled involuntarily;
- e. it has peristaltic movements for the transport of urine, from kidneys to bladder.

26. About the renal artery we can state the following:

- a. it is the branch of the celiac trunk;
- b. it is the branch of the abdominal aorta;
- c. after entering the kidneys, it creates the interlobar arteries;
- d. after entering the kidneys, it creates the interlobular arteries;
- e. it provides the blood flow necessary to glomerular filtration.

27. From the bladder, the urine is discharged through the following structures, except:

- a. the ureters;
- b. the urethra;
- c. the renal pelvis;
- d. the major calyces;
- e. the minor calyces.

28. About the ureters we can state the following:

- a. they are two smooth muscle tubules that carry the urine to the bladder;
- b. they start from the renal pelvis;
- c. they are provided with peristaltic movements controlled by the autonomic nervous system;
- d. the peristaltic wave frequency is accelerated by the sympathetic system;

e. the peristaltic wave frequency is slowed down by the parasympathetic system;

29. The process of urine formation includes:

- a. glomerular ultrafiltration;
- b. tubular reabsorption;
- c. tubular secretion;
- d. only active mechanisms;
- e. only passive diffusion and osmosis mechanisms.

30. The glomerular ultrafiltration consists of:

- a. the blood plasma passing through the membrane filter;
- b. primary urine formation;
- c. the filtrate passing in the uriniferous tubule;
- d. a process that takes place with energy consumption;
- e. the blood plasma passing from the glomerular capillaries into the Bowman capsule.

31. The glomerular filtrate is:

- a. a plasma which does not contain significant quantities of protein;
- b. the fluid that filters at the venous end of the capillary;
- c. a plasma with an average number of red blood cells;
- d. the primary urine;
- e. the final urine.

32. The endocrine function of the kidney consists of the secretion of the following hormones EXCEPT:

- a. renin;
- b. ADH;
- c. erythropoietin;
- d. aldosterone;
- e. mineralocorticoid.

33. The ureters are characterized by the following:

- a. they carry the primary urine from the renal pelvis to the bladder;
- b. they open into the bladder through two orifices;
- c. they enter obliquely into the bladder wall, thus preventing the reflux of the urine from the bladder into the ureter;
- d. they present a smooth sphincter controlled by the vagus nerve;
- e. they have a striated sphincter controlled voluntarily

34. Micturition:

- a. is the emptying of the bladder;
- b. takes place when the intraparietal tension reaches a threshold value;
- c. is controlled by the centers of the spinal cord;
- d. is an involuntary process;
- e. can be controlled by superior nerve centers.

35. The external sphincter of the bladder:

- a. is made up of striated muscle fibers;
- b. is under the control of the autonomic nervous system;

- c. prevents the micturition, even when the involuntary control tends to commence it;
- d. is relaxed by the parasympathetic;
- e. is inhibited by the sympathetic.