PART I: MASTERING THE BASICS

MATCHING

The Urinary System

Directions. Match the following terms to the most appropriate definition by writing the correct letter in the space provided. Some words may be used more than once.

A. ureters
B. kidneys
C. hilus
D. renal pelvis
E. bladder
F. renal pyramids
G. fibrous capsule
H. urethra
I. renal columns
J. calyces

1. _____ tubes that conduct urine from the kidneys to the bladder

2. _____ tube that conducts urine from the bladder to the exterior for elimination

3. _____ a reservoir that receives and stores urine

4. _____ a Foley catheter is inserted into this organ for drainage

5. _____ bean-shaped organs that make urine

6. _____ pathogens can ascend from the bladder through these tubes to the kidneys, thereby causing a kidney infection

7. _____ this structure is involved in urinary retention

8. _____ structure that contains the trigone, a triangle formed by the two points of entrance of the ureters and the exit point of the urethra

9. _____ the external sphincter surrounds the upper region of this structure

10. _____ the internal sphincter is located at the exit of this structure

11. _____ the prostate gland in the male encircles this structure

12. _____ the indentation of the bean-shaped kidney; it is the point where blood vessels, nerves, and the ureter enter or exit the kidney

13. _____ the wall of this structure is arranged in rugae to allow for expansion

14. _____ the basin within the kidney that collects the urine made by the kidney

15. _____ the lighter, outer region of the kidney, called the renal cortex, extends inward to form these structures

16. _____ the darker, inner region of the kidney, called the renal medulla, forms these striped cone-shaped regions

17. _____ cuplike edges of the renal pelvis that receive the urine from the renal pyramids and empty it into the renal pelvis

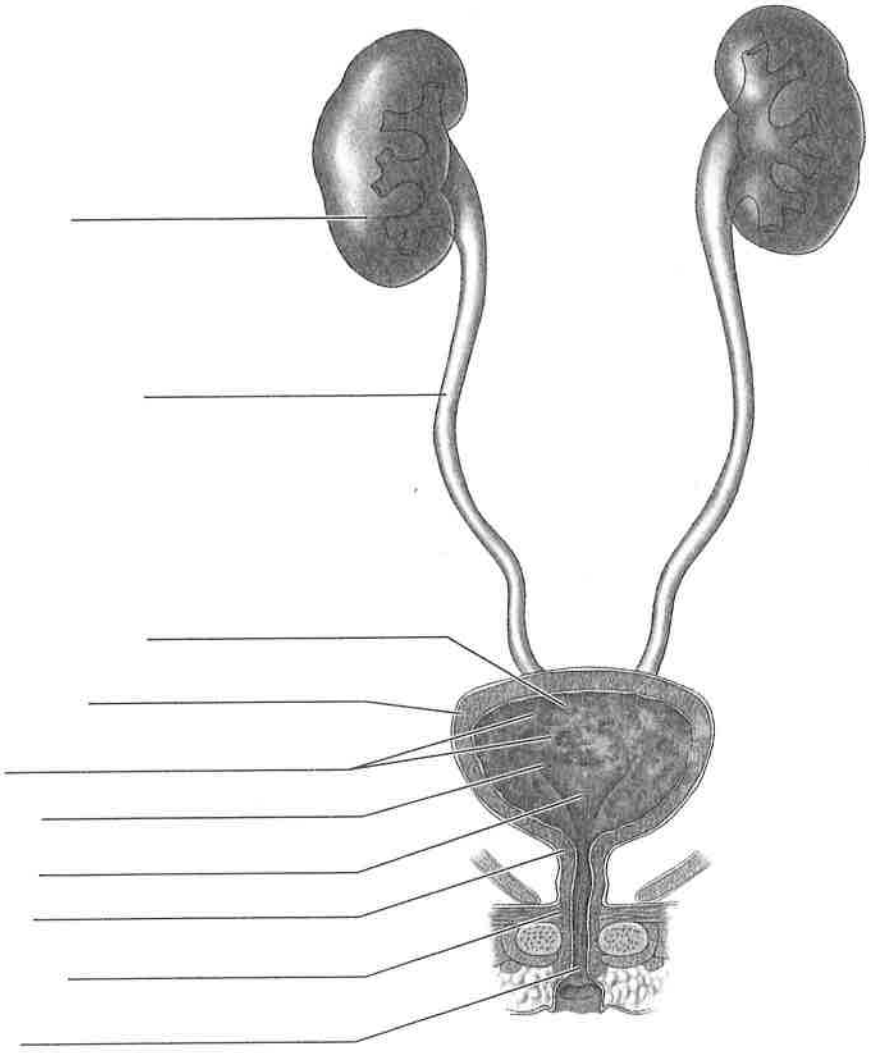
18. _____ a tough outer lining that encases the kidney

Student Name _____

LABELING

Urinary System

Directions. Referring to the illustration, indicate the parts of the urinary system by writing the correct terms on the lines provided.



ureteral opening

urethra

detrusor muscle

external sphincter

internal sphincter

trigone

rugae

bladder

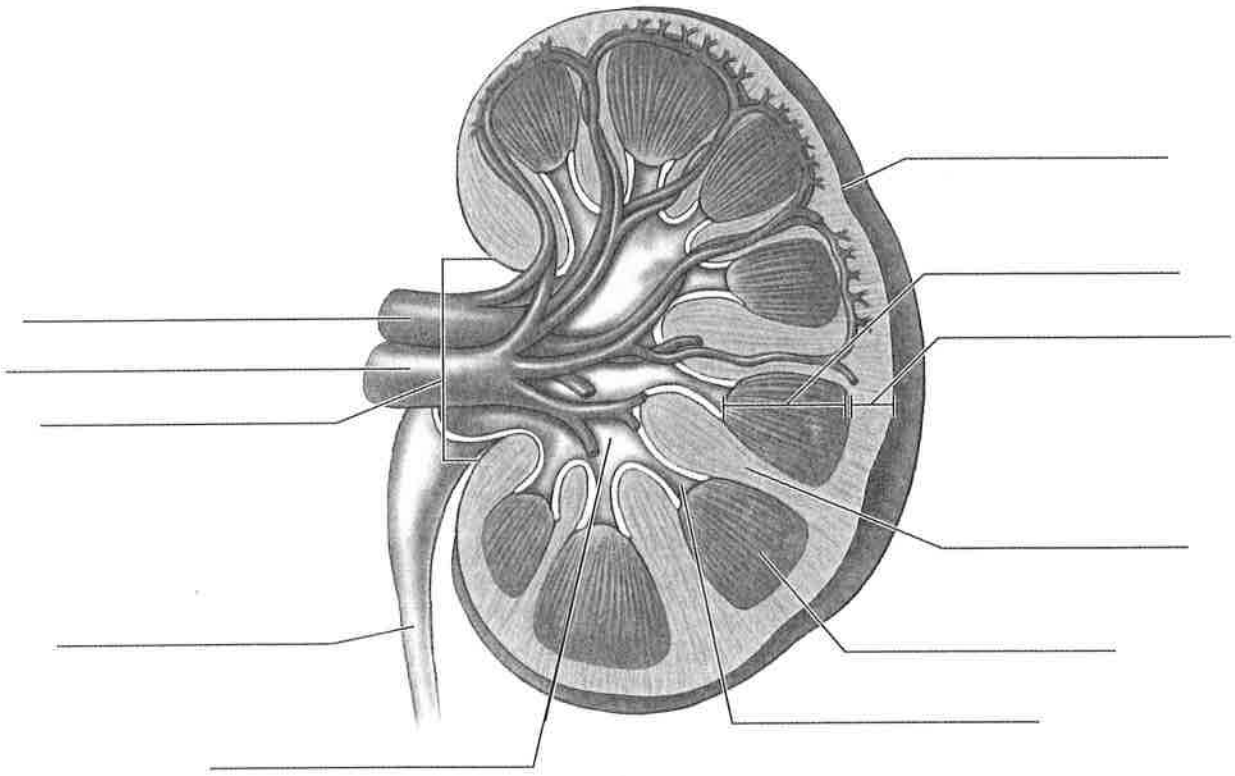
ureter

kidney

LABELING

Kidney

Directions. Referring to the illustration, indicate the parts of the kidney by writing the correct terms on the lines provided. Some terms may be used more than once.



renal vein
renal pelvis
renal pyramid
fibrous capsule
medulla
cortex
renal artery
renal column
calyx
ureter
hilus

Student Name _____

MATCHING

Nephron Unit

Directions. Match the following terms to the most appropriate definition by writing the correct letter in the space provided. Some terms may be used more than once.

A. peritubular capillaries

B. loop of Henle

C. proximal convoluted tubule

D. collecting duct

E. distal convoluted tubule

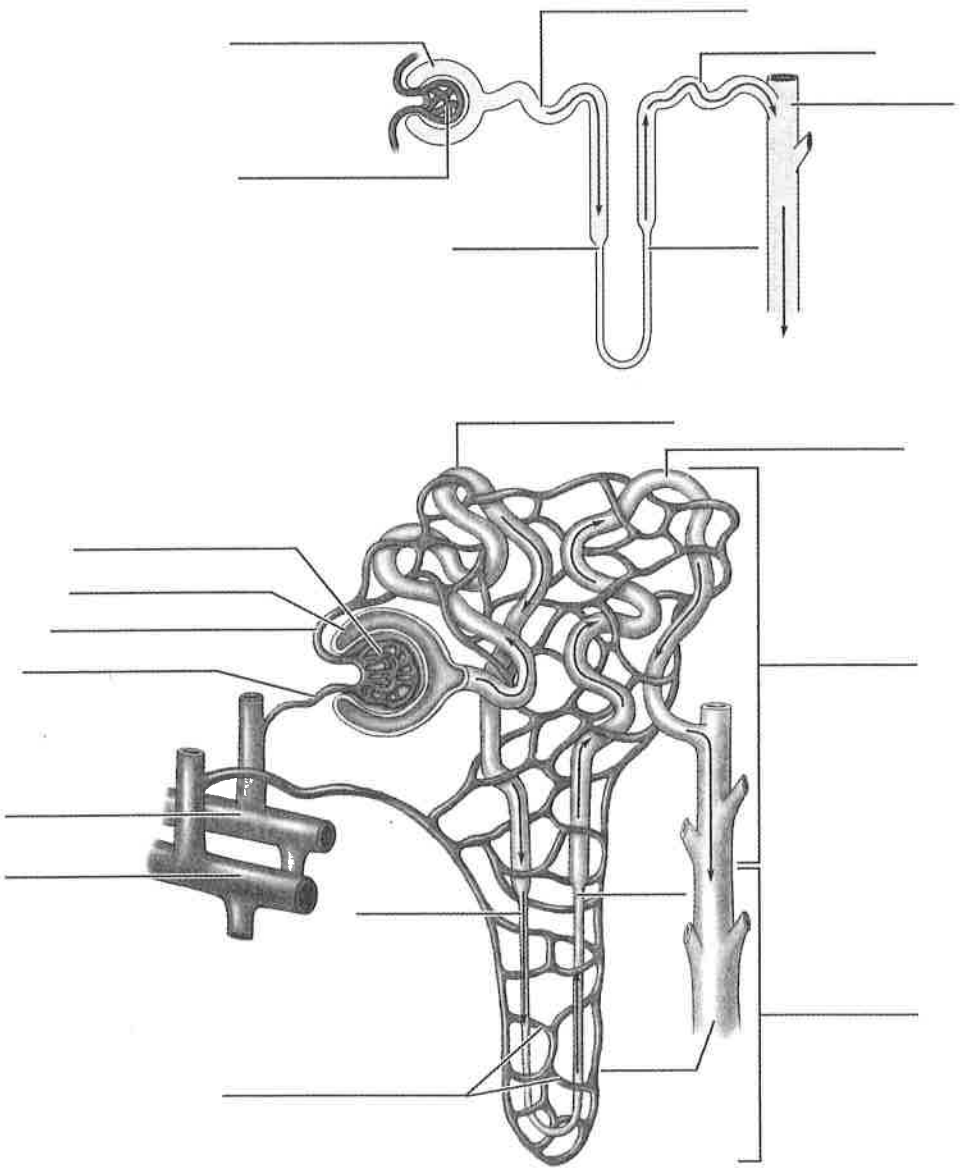
F. glomerulus (glomeruli)

1. _____ the tuft of capillaries across which water and solute are filtered
2. _____ the distal convoluted tubule empties urine into this structure
3. _____ the structure that is most concerned with the concentration of urine
4. _____ vascular structure that surrounds the tubules; involved in reabsorption
5. _____ the efferent arteriole extends and becomes this structure
6. _____ most reabsorption occurs across the walls of this tubular structure
7. _____ the site at which ADH is most active
8. _____ the afferent and efferent arterioles bracket (form bookends to) this structure
9. _____ the final adjustment of urine occurs at this site
10. _____ the proximal convoluted tubule extends as this structure
11. _____ site at which aldosterone is most active
12. _____ these capillaries sit within the C-shaped Bowman's capsule
13. _____ this structure empties blood into the venules and eventually into the renal vein
14. _____ the process of secretion causes solute to move from this structure into the tubules
15. _____ composed of an ascending and a descending limb
16. _____ the process of reabsorption causes water and solute to move from the tubule into this structure

LABELING

Nephron Unit

Directions. Referring to the illustration, indicate the parts of the nephron unit by writing the correct terms on the lines provided. Some terms may be used more than once.



loop of Henle
collecting duct
glomerulus
afferent arteriole
from the renal artery
calyx
cortex
Bowman's capsule
distal convoluted tubule
ascending limb (of Henle)
peritubular capillaries
medulla
efferent arteriole
descending limb (of Henle)
proximal convoluted tubule
to the renal vein