

Name _____

Date _____

Section _____

The _____ corresponds to the indicated Learning Outcome(s) listed at the beginning of the laboratory exercise.

Kidney Structure

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Part A Assessments

Match the terms in column A with the descriptions in column B. Place the letter of your choice in the space provided. **2**

Column A

- a. Calyces
- b. Hilum of kidney
- c. Nephron
- d. Renal column
- e. Renal cortex
- f. Renal papilla
- g. Renal pelvis
- h. Renal pyramid
- i. Renal sinus

Column B

- _____ 1. Shell around the renal medulla
- _____ 2. Branches of renal pelvis to renal papillae
- _____ 3. Conical mass of tissue within renal medulla
- _____ 4. Projection with tiny openings into a minor calyx
- _____ 5. Hollow chamber within kidney
- _____ 6. Microscopic functional unit of kidney
- _____ 7. Cortical tissue between renal pyramids
- _____ 8. Superior funnel-shaped end of ureter inside the renal sinus
- _____ 9. Medial depression for blood vessels and ureter to enter kidney chamber

Part B Assessments

Complete the following:

- 1. Distinguish between a renal corpuscle and a renal tubule. **3** _____

- 2. Number the following structures to indicate their respective positions in relation to the nephron. Assign the number 1 to the structure nearest the glomerulus. **4**
_____ Ascending limb of nephron loop
_____ Collecting duct
_____ Descending limb of nephron loop
_____ Distal convoluted tubule
_____ Glomerular capsule
_____ Proximal convoluted tubule
_____ Renal papilla

3. Number the following structures to indicate their respective positions in the blood pathway within the kidney. Assign the number 1 to the vessel nearest the renal artery. **5**

_____ Afferent arteriole
_____ Efferent arteriole
_____ Glomerulus
_____ Peritubular capillary
_____ Renal vein

Part C Assessments

Sketch a representative section of the renal cortex and the renal medulla. Label the glomerulus, glomerular capsule, and sections of renal tubules in the renal cortex and a longitudinal section and cross section of a collecting duct in the renal medulla. **3**

| | |
|----------------------|-----------------------|
| Renal cortex (____×) | Renal medulla (____×) |
|----------------------|-----------------------|

Part D Assessments

Sketch a cross section of a ureter. Label the three layers and the lumen. Indicate the magnification used for your sketch.