

Primary System
consists of:

- 1)
- 2)
- 3)
- 4)

EXAM 3
Brightman
BSC 1086



ch. 26

Protecting Layers
of the Kidneys

2.

- 1) _____ is _____
- 2) _____ is _____
- 3) _____ is _____

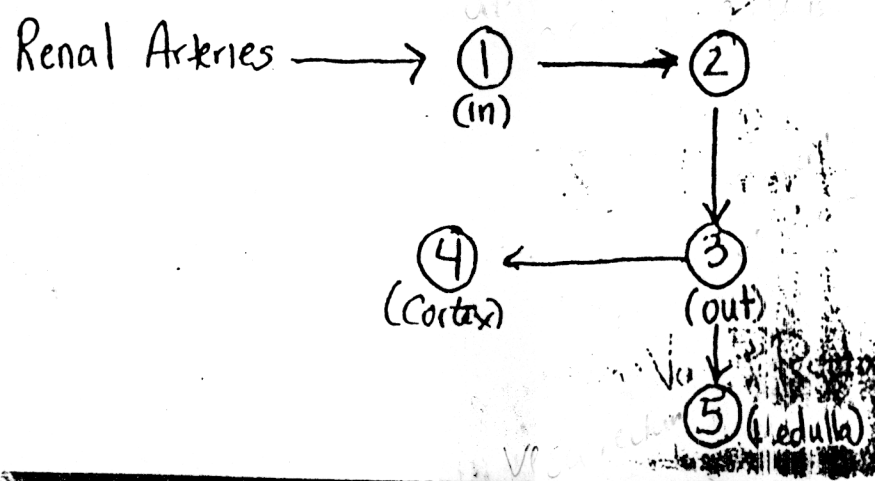
Kidney: Frontal Section

3

1. _____ = outer
2. _____ = inner (pyramids)
3. _____
4. _____ → ureters

Nephron: Blood Supply

4.



3

Nephron: 3 functions

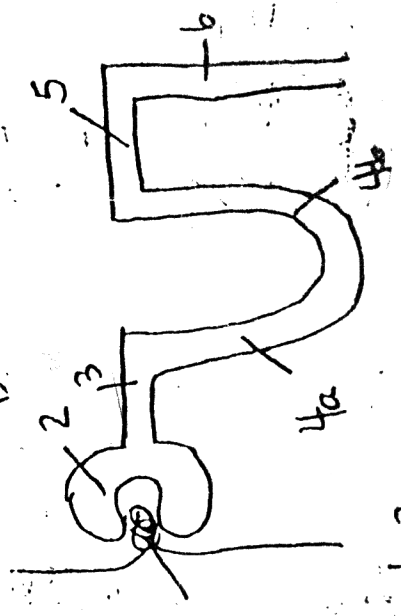
1. _____ = glomerulus → Bowman's Capsule
2. _____ = nephron → blood
3. _____ = blood → nephron

(p. 1-5)



6.

Nephron: Parts



1+2=

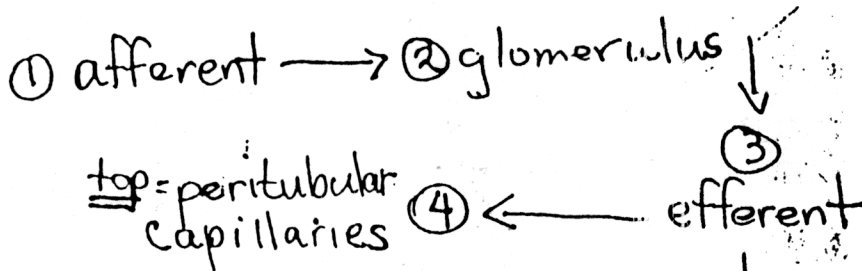
- Kidneys
- 1) kidneys
 - 2) ureters
 - 3) urinary bladder
 - 4) urethra.

p. 2-8

- 1) Renal capsule is inner layer.
- 2) Adipose layer is middle layer.
- 3) renal fascia is outer layer.

1. filtration
2. tubular reabsorption
3. tubular secretion

- 1) adrenal cortex
- 2) renal medulla
- 3) minor calyces & major calyces
- 4) renal pelvis



1. glomerulus
2. Bowman's capsule
- 1+2 = renal corpuscle (PCT)
3. proximal convoluted tubule (PCT)
- 4) descending loop of Henle
- 4) ascending loop of Henle
- 4) distal convoluted tubule (DCT)
5. collecting tubule

Types of Nephrons

1. _____ = 85% w/ short loops (reabsorption)
2. _____ = 15% w/ long loops (concentration)

Juxtaglomerulus Apparatus

1. _____ = loop of Henle
2. _____ = afferent arteriole w/ _____

Renal Physiology: Renal Corpuscle

1. Function = _____
2. Can't filter = _____

Renal Physiology: PCT

1. Reabsorption = _____
2. Secretion = _____

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Physiology: Loop of Henle

1. _____ = reabsorption H₂O
2. _____ = reabsorption Na⁺

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Physiology: DCT/CT

1. Reabsorption
 - a. _____ = ADH
 - b. _____ = Aldosterone
2. Secretion = _____

- 1. cortical (cortex)
- 2. juxta medullary (medulla)

- 1. macula densa cells
- 2. J.G. cells w/ renin (hormone)

- 1. descending loop
- 2. ascending loop

- 1. Filtration
- 2. Filtered substances such as formed elements & blood proteins

- 1. a. H₂O
b. sodium
- 2. K⁺ by Aldosterone & Hydrogen ions

- 1. mostly H₂O, Na⁺, K⁺
100% glucose
100% amino acids
- 2. NH₄ (ammonia)

1. Ureters transport urine
2.
 - a. transitional epithelium - mucosa
 - b. muscularis layer = detrusor muscle
 - c. serosa layer
3. Urethra

1. glucosuria = diabetes mellitus
2. Proteinuria = internal bleeding
3. Ketanuria = too much ketone bodies
4. Hematuria = too much RBC / internal bleeding
5. Pyuria = too much WBC / pus

1. _____ → urinary bladder filled from bottom up. 13
2. Urinary Bladder
 - a. mucosa: _____
 - b. _____
 - c. _____
3. _____ to free word

Urinalysis 14

1. _____ = glucose = _____
2. _____ = protein = _____
3. _____ = ketones = _____
4. _____ = RBC = _____
5. _____ = WBC = _____