

## Recap Urinary System

1. Urinary system removes -----waste materials, maintain -----balance and -----balance.
2. Urine is formed in ----- and is stored in -----.
3. ----- carries urine from kidneys to bladder and -----carries urine to outside.
4. Each kidney has about 1 million of functional units -----.
5. Each nephron has renal corpuscle formed of ----- and ----- -----.
6. Filtrate moves from ----- → Glomerular capsule → ----- → loop of Henle → ----- → collecting duct and becomes urine.
7. Renal artery → ----- A. → lobar A. →----- A. →arcuate A. → ----- → -----tubule → glomerulus → -----
8. Collecting ducts → ----- duct →medullary ----- → -----calyx → ----- calyx → pelvis → -----
9. ----- ----- are extensions of cortex into medulla and separate medullary pyramids from one another.
10. Urethra in females is ----- than urethra in males.
11. Urine formation takes place by 3 processes -----, -----, and -----.
12. Filtration takes place in----- . Useful substances like ----- and -----pass out in filtrate, also harmful substances like ----- pass out in filtrate.
13. Kidney has to actively secrete some substances, like ----- and -----, that do not filter out in filtrate.
14. 3 nitrogenous substances eliminated in urine are -----, -----, ----- and -----.
15. Most of the reabsorption takes place in ----- ; most of the secretion takes place in -----.
16. Glomerular capillaries are ----times more permeable than ordinary capillaries due to presence of pores in them and slits between feet of podocytes.
17. Juxtaglomerular Apparatus consists of ----- -----, ----- ----- and ----- cells.
18. Macula densa is a patch of closely placed slender cells in ----- side facing afferent arteriole.
19. -----cells are swollen smooth muscle fibers mostly around afferent arteriole but some around efferent arteriole.

20. -----cells are present between afferent and efferent arterioles and also around glomerular capillaries and relax or constrict them to regulate filtration pressure.
21. -----released by posterior pituitary causes the walls of DCT and Collecting ducts to become permeable so that lot of water is -----from urine.
22. Angiotensin 1 is released by -----; kidneys release ----- that activates angiotensin 1 to angiotensin 2 form.
23. Angiotensin 2 stimulates adrenal cortex to release -----hormone that causes greater reabsorption of  $\text{Na}^+$  followed by water.
24. ----- is a small triangular area in urinary bladder having 2 openings of ureters and a 3<sup>rd</sup> for urethra.
25. Glucose can be completely absorbed by kidney up to -----mg/100mls of blood.
26. Elimination of blood in urine is ----- and elimination of glucose in urine is -----.
27. The counter current systems of kidney are ----- and -----.
28. The counter current systems of kidney help to maintain ----- system in medulla.
29. Kidneys can excrete ----- urine due to activity of counter current systems.