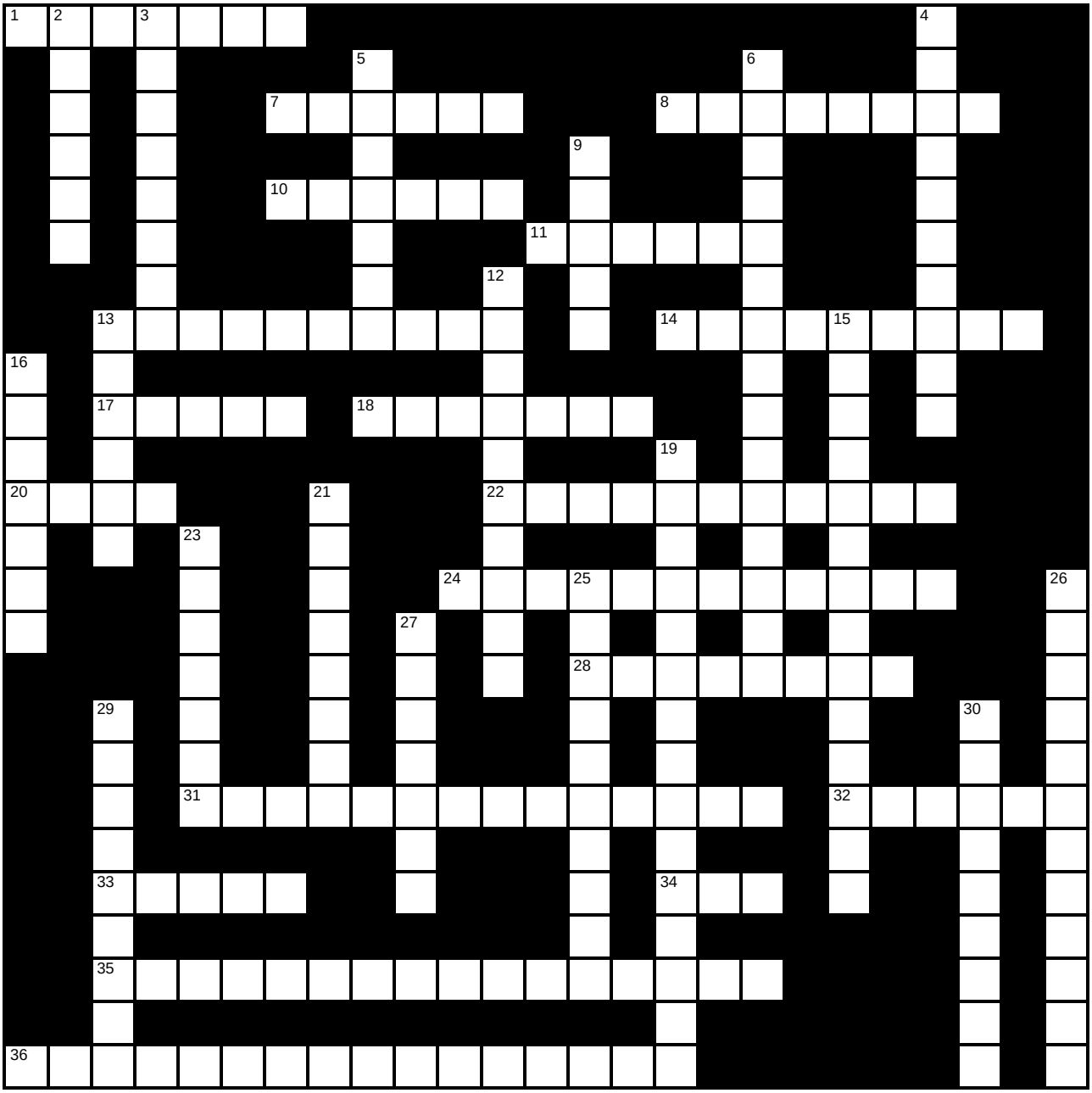
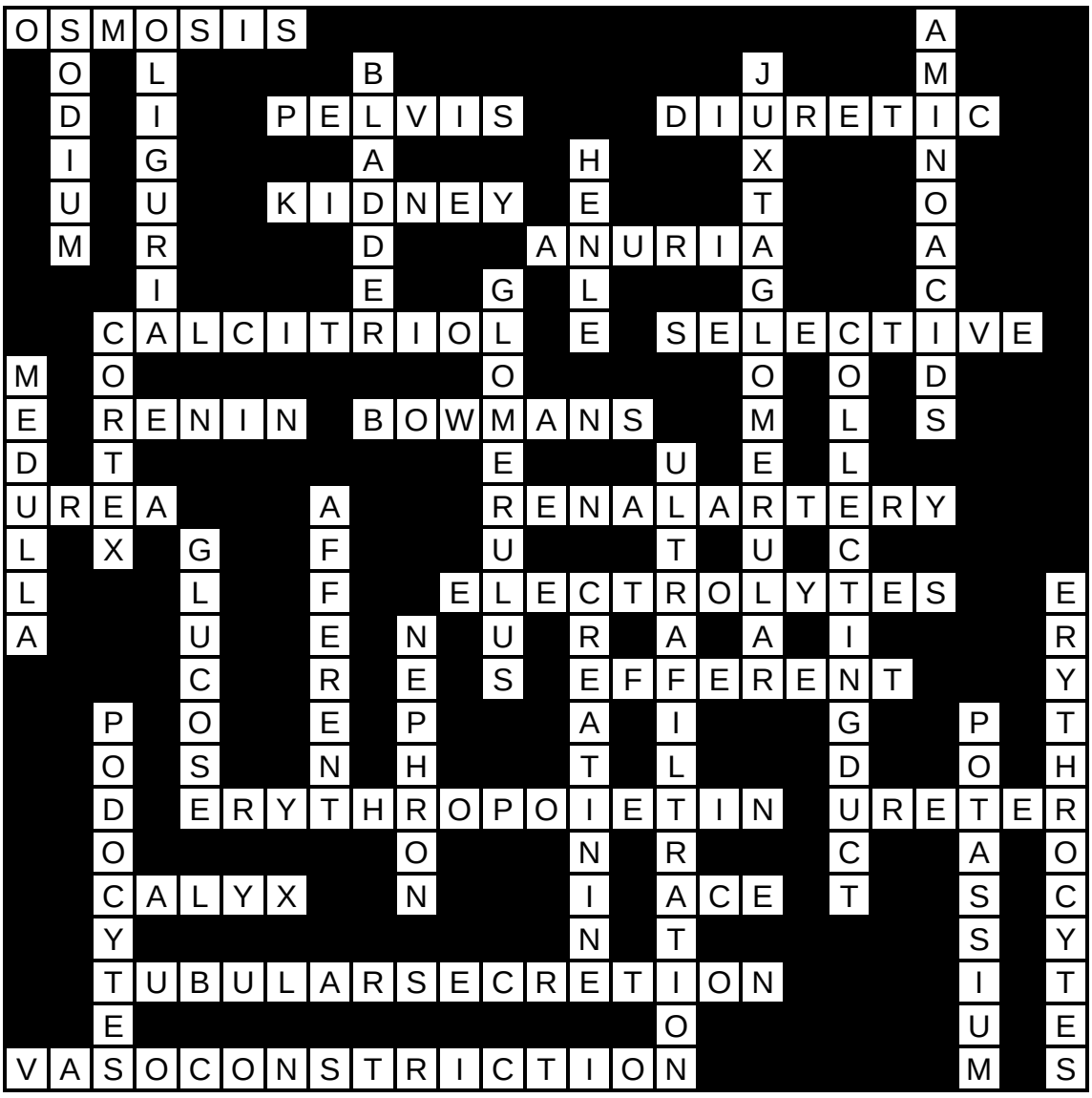
Renal system anatomy and physiology





Across

1 movement of water through a semipermeable membrane (7)

7 urine enters this area of the kidney from the calyces (6)

8 substance which increases urine volumes (8)

10 bean shaped organ in the pelvic cavity (6)

11 when no urine is produced (6)

13 the activated form of vitamin D (10)

14 this form of reabsorption takes place from the nephrons (9)

17 a substance released from the juxtaglomerular cells (5)

Down

2 normal plasma range is 135 - 146 mmol/L (6)

3 reduced production of urine (8)

4 all of these protein building units are reabsorbed from the nephron (10)

5 structure for the storage of urine (7)

6 apparatus in afferent arteriole (15)

9 name of the loop (5)

12 a ball of capillaries in the renal corpuscle (10)

13 the outer part of an organ (6)

15 fluid passes into this from the nephron (14)

16 the inner part of an organ (7)

18 name of the renal capsule (7)

20 soluble, relatively non-toxic nitrogen containing waste molecule (4)

22 transports blood from aorta to kidney (11)

24 ions in the plasma (12)

28 the arteriole which leaves the glomerulus (8)

31 endocrine hormone released by the kidney (14)

32 tube from kidney to bladder (6)

33 structures which receive urine from the renal papillary ducts and pass it through to the renal pelvis (5)

34 angiotensin converting enzyme (3)

35 process of substances passing from the capillaries into a renal tubule (16)

36 an effect of angiotensin II (16)

19 physiological process for the formation of glomerular filtrate (15)

21 arteriole carrying blood towards the glomerulus (8)

23 all of this carbohydrate is reabsorbed by the nephron (7)

25 formed from the metabolism of creatine, normal plasma levels are 79 - 118 umol/L (10)

26 include sodium, potassium, chloride and calcium ions (12)

27 microscopic functional unit of kidneys (7)

29 cells forming visceral layer of bowmans capsule (9)

30 normal plasma levels of this electrolyte are 3.5 - 5 mmol/L (9)