

## **Exam 4 Breakdown– summer 2025**

### **Ch 9 – Immune physiology (25 ques)**

- 4 on general immune cells (organs) or cells of body
- 2 on external innate immunity (see flow diagram)
- 7 on internal innate immunity (see flow diagram)
- 5 on adaptive immunity (T-cells and B-cells) (see flow diagram)
- 4 on classification of immunity into passive vs active
- 2 on autoimmune disorders
- 1 on sequence of immunity (see flow diagram)

### **Ch 10 – Kidney physiology (25 ques)**

- 5 on reabsorption of substances from the different parts of the nephron (PCT, descending and ascending loop, DCT, and collecting duct), including the influences of hormones (ADH, Aldosterone)
- 2 on what stimulates ADH and renin secretion
- 5 on general urinary system vocabulary (afferent and efferent arteriole, glomerulus, peritubular capillaries, filtrate, reabsorption, secretion, excretion)
- 3 on GFR regulation
  - If BP less than 80 mmHg, GFR decreases
  - If BP greater than 160, GFR increases
  - If BP is between 80 – 160, GFR stays same
- 2 on diuretics and where they act on nephron
- 4 on kidney diseases or disorders
- 4 on autonomic regulation of detrusor muscle and proximal urethral sphincter (PUS)
  - Under parasympathetic control – detrusor contracts & PUS relaxes
  - Under sympathetic – detrusor relaxes, PUS contracts