

Exam 4 breakdown updated Nov 24, 2025

Ch 10 – kidney physiology (15 ques)

- 3 on reabsorption of substances from the different parts of the nephron (PCT, Loop, DCT, collecting duct)
- 3 on GFR regulation (when BP is within 80 -160mmHg, versus below 80 or above 160)
- 2 on diuretics and where they act on nephron
- 1 on ADH and aldosterone and where they act on the nephron
- 2 on kidney diseases / disorders
- 4 on autonomic regulation of detrusor muscle and proximal urethral sphincter (under parasympathetic versus sympathetic regulation)

Ch 9 – immune physiology (15 ques)

- 2 on general immune organs or cells of body
- 3 on external innate immunity (see flow diagram)
- 4 on internal innate immunity (see flow diagram)
- 2 on cell mediated immunity (see flow diagram)
- 1 on antibody mediated immunity (see flow diagram)
- 2 on classification of immunity into passive natural and artificial versus active natural and artificial
- 1 on sequence of immunity (see flow diagram)

Ch 15 – reproduction physiology (20 ques)

- 3 questions on male reproductive glands (slide 7)
- 1 ques on oogenesis (maturation of egg and the follicles that house it, during 28 menstrual cycle)
- 4 ques on blood tests for cancer (PSA, CA 125, and BRCA gene – including how mutation in BRCA gene increases cancer risk in men and women)
- 2 on what happens in the ovary and to the endometrium in the 28 menstrual cycle (Ex. What days is egg maturing, ovulating, and days that the corpus luteum is making progesterone, and what is happening to uterine endometrium).
- 1 ques on risks for ovarian cancer
- 1 ques on male reproductive structures (slides 2 – 6)
- 1 ques on path sperm makes from production in testes seminiferous tubules, and through the transport tubes. (slides 2 & 6)
- ~~2 ques on process of an erection, and how ED drugs work. (slides 12 – 14)~~
- 1 on female reproductive structures (parts of the uterus, fallopian tubes, vulva, ovaries) Pg 12 - 13
- 3 ques on hormones (progesterone and what produces it, prostaglandin and what produces it and what effect it has, estrogen & testosterone and what pituitary hormone stimulates their production)
- 3 ques on repro disorders (BPH, prostate cancer, endometriosis, polycystic ovarian syndrome, leiomyomas, ovarian cancer) Just look throughout powerpoint.