

Reproductive System

1. Describe the anatomy and functions of each of the following male/female reproductive structures/organs. Include key cells, tissue layers and structural terms as listed.

Male

Testes: tunics, lobules, seminiferous tubules, interstitial cells of Leydig, Sertoli/Nurse cells

Epididymis

Vas Deferens and Spermatic Cord

Seminal Vesicles

Ejaculatory Duct

Prostate Gland

Urethra: prostatic, membranous, urethral

Bulbourethral Glands/Cowper's glands

Penis: corpus spongiosum, corpus cavernosum

Scrotum

Female

Ovaries

Fallopian Tubes/ Oviducts: fimbriae, ciliated columnar ET lining

Uterus: fundus, body, myometrium, endometrium

Cervix

Vagina: vaginal orifice

External Genitals: vulva, labia major and minor, vestibule, vestibular glands, clitoris

Ligaments: ovarian, round, broad

Mammary Glands: lobules, areola, nipple, lactiferous glands, lactiferous ducts, lactiferous sinuses

2. Describe the process and purpose of meiosis. Compare and contrast Division I and Division II, compare it to mitosis.
3. Describe the process of spermatogenesis in the male testes. Include the following terms in your discussion: spermatogonium, primary spermatocyte, secondary spermatocyte, spermatids, mature spermatozoa (sperm), Sertoli cells, haploid, diploid, meiosis I, meiosis II, differentiation.
4. Describe the structure and function of a mature sperm cell.

5. Describe the production and function of the three major hormones which control male reproductive capacity: FSH, LH, and testosterone
6. Describe the secondary sex traits which develop in the male with the onset of puberty.
7. Describe male sexual arousal, erection, and ejaculation. Include the role of the sympathetic and parasympathetic system in your discussion.
8. Describe oogenesis in the ovary. Use the following terms in your discussion: primordial follicles, primary oocyte/follicle, secondary oocyte/follicle, polar bodies, Meiosis I, Meiosis II, haploid, diploid, corpus luteum, corpus albicans.
9. Describe the four phases of the menstrual cycle describing the roles of the dominant hormones in each phase: menses, preovulatory (follicular), ovulation, post-ovulatory (luteal, secretory).
10. Discuss the ovarian cycle versus the uterine cycle, coordinating the timing and hormonal influences controlling each process.
11. Describe female sexual arousal and orgasm; include the role of the parasympathetic/sympathetic systems.