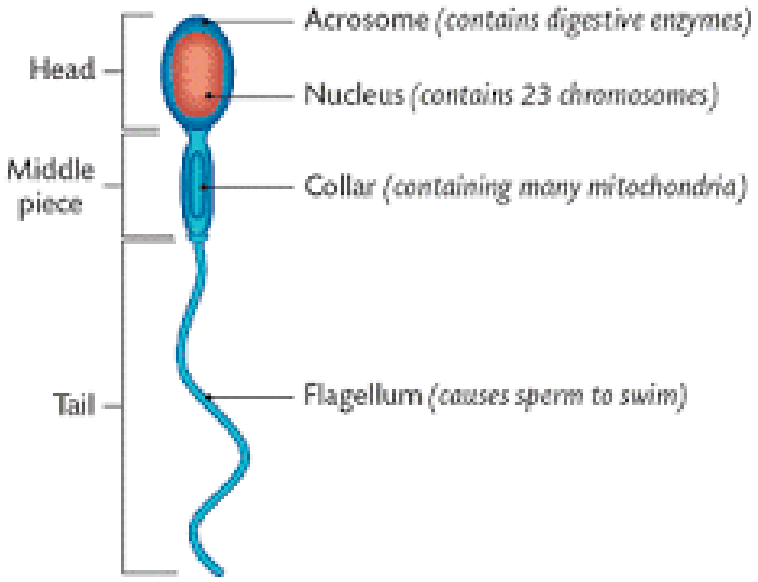
8. Define spermiogenesis and spermiation.
Ans: Spermiogenesis is the process of transformation of spermatids into mature flagellated spermatozoa (sperms).Spermiation is the process of release of mature spermatozoa. In this spermatozoa are shed into the lumen of seminiferous tubule for transport.

9. Draw a labelled diagram of sperm.
Ans:



10. What are the major components of seminal plasma?
Ans: Seminal plasma is the fluid in which sperm is ejaculated. Major components of seminal plasma are secretions from seminal vesicles, prostrate and bulbourethral gland and sperms from testis. It is rich in fructose and contains enzymes, citric acid, hormones like prostaglandins, calcium and clotting proteins.

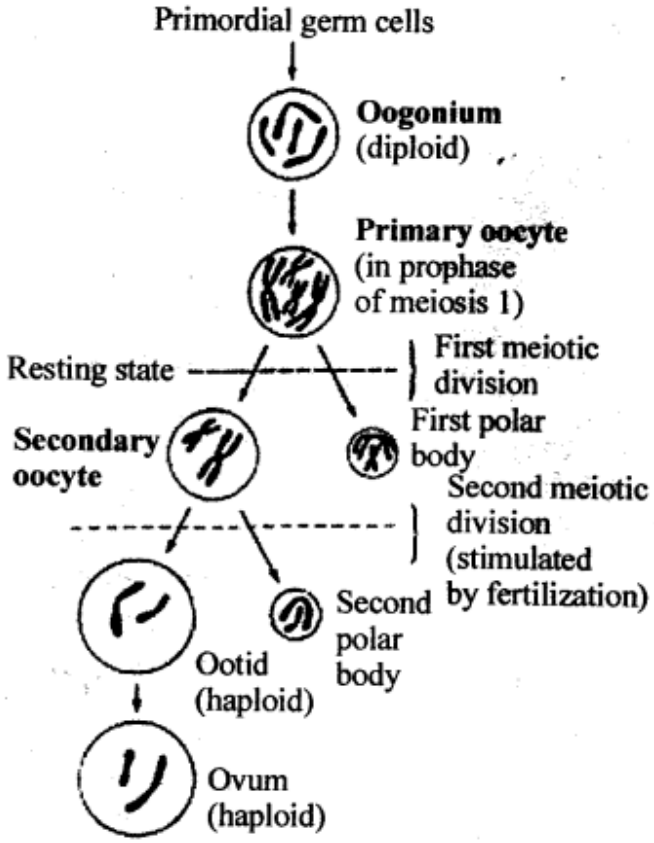
11. What are the major functions of male accessory ducts and glands?
Ans: Major functions of male-accessory ducts are

- Aid in sperm transport.
- Temporary storage of spermatozoa.

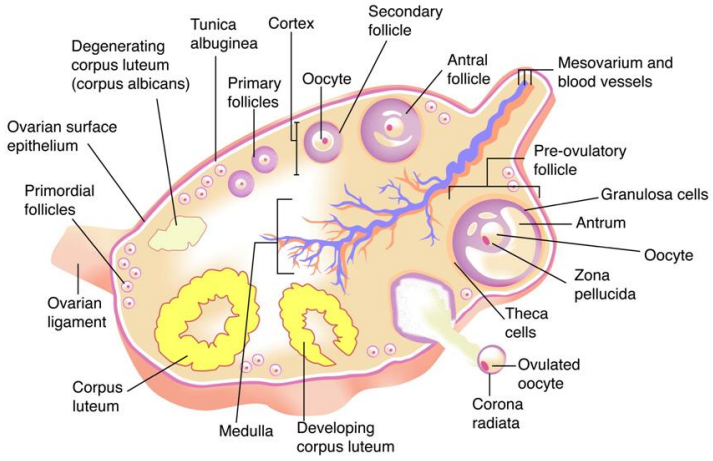
Male accessory glands secretions constitute the seminal plasma. These secretions are rich in fructose, ascorbic acid, citrate, calcium, certain enzymes and prostaglandins. These secretions nourish and activate the spermatozoa to swim.

12. What is oogenesis? Give a brief account of oogenesis.
Ans: The process of formation of a mature female gamete (ovum) is called oogenesis. It occurs in the ovaries of female reproductive system. Oogenesis is a discontinuous process it begins before birth, stops in midprocess & only resumes after menarch. It occurs in three phases : Multiplicative phase (formation of oogonia mitotically from the primary germ cells), Growth phase (growth of oogonia into primary oocyte) & Maturation phase (formation of mature ova

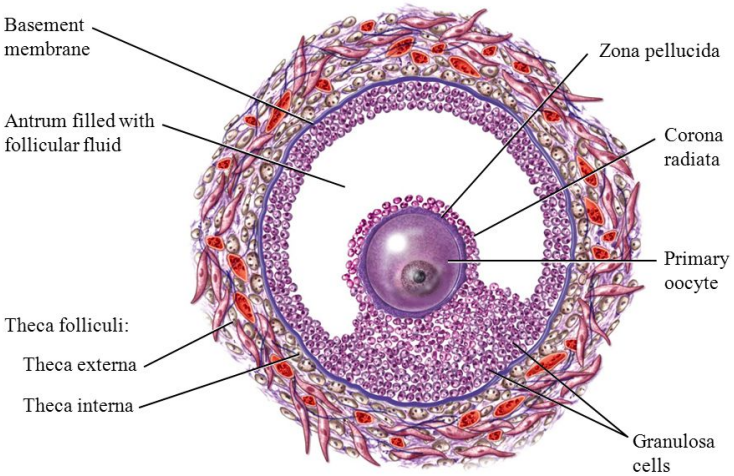
from primary oocyte through meiosis). Maturation phase produces two haploid cells - Larger one called secondary oocyte & the smaller one called polar bodies (1st polar body). Meiosis II of secondary oocyte results in the formation of functional egg or ovum and a second polar body: The first polar body may also divide to form two polar bodies of equal sizes which do not take part in reproduction & ultimately degenerates. First maturation division may be completed in the ovaries just prior to ovulation but second one (Final) is completed outside the ovary after fertilization. Secondary oocyte is female gamete in which the 1st meiotic division is completed & second meiotic division (Metaphase stage) has begin. The egg is released at secondary oocyte stage under the effect of LH.



13. Draw a labelled diagram of a section through ovary.
Ans:



14. Draw a labelled diagram of a Graafian follicle.
Ans:



(d) Mature (graafian) follicle

********** END **********