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Assignment

Write short note on the following:

1. Spermatogenesis: is the process of formation of spermatocyte from spermatogonia.it is initiate in puberty, continue throughout the reminder of a man's life and take place in the walls of the seminiferous tubules.

.Spermatogenesis is the process by which haploid spermatozoa develop from germ cells in the seminiferous tubule of the testis .This process starts with the mitotic division of the stem cells located close to the basement membrane of the tubules.These cells are called spermatogonial stem cells . The mitotic division of these produces two types of cells. Type A cells replenish the stem cells, and type B cells differentiate into primary spermatocytes . The primary spermatocyte divides meiotically (Meiosis I) into two secondary spermatocytes; each secondary spermatocyte divides into two equal haploid spermatids by Meiosis II. The spermatids are transformed into spermatozoa (sperm) by the process of spermiogenesis. These develop into mature spermatozoa, also known as sperm cells .Thus, the primary spermatocyte gives rise to two cells, the secondary spermatocytes, and the two secondary spermatocytes by their subdivision produce four spermatozoa and four haploid cells.Spermatogenesis starts in the bottom part of seminiferous tubes and, progressively, cells go deeper into tubes and moving along it until mature spermatozoa reaches the lumen, where mature spermatozoa are deposited. The division happens asynchronously; if the tube is cut transversally one could observe different maturation states. A group of cells with different maturation states that are being generated at the same time is called a spermatogenic wave.

2. Testosterone: Testosterone is the primary male sex hormone and anabolic steroids In male humans, testosterone plays a key role in the development of male reproductive tissues such as testes and prostate , as well as promoting secondary sexual characteristics such as increased muscle and bone mass, and the growth of body hair .In addition, testosterone is involved in health and well-being,and the prevention of osteoporosis .Insufficient levels of testosterone in men may lead to abnormalities including frailty and bone loss.

3. Semen: also know as seminal fluid,is an organic fluid that contains spermatozoa. It is secreted by the gonads and other sexual organs of male or hermaphroditia animals and can fertilize the female ovum.Semen also contains other liquids, known as seminal plasma ,which help to keep the sperm cells viable.

4. Male infertility: refers to a male inability to cause pregnancy in a fertile female.in human it account for 40 to 50% of infertility is commonly due to deficiencies in the semen, and semen quality is used as a surrogate measure of male fecundity.

5. Male orgasm : refers to peak of sexual pressure. It causes a number of physiological reaction in the male body, including rhythmic contractions of the muscles of the penis and an increase in heart rate, blood pressure and respiration. Ejaculation often occur in conjunction with orgasm, but not

always.