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### ANSWERS

1) SPERMATOGENESIS: Spermatogenesis is the process by which haploid spermatozoa develop from germ cells in the seminiferous tubules 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. Spermatogenesis is initiated in the male testis with the beginning of puberty. Males start producing sperm when they reach puberty, which is usually from 10-16 years old.

There are three stages involved in spermatogenesis:

i) spermatocytogenesis (mitosis) which comprises the cells from the spermatogonium up to and including the secondary spermatocyte.

ii) meiosis

iii) spermiogenesis: which comprises the differentiation/maturation of the sperm cell, starting with the spermatid phase.

2) TESTOSTERONE: This is the primary male sex hormone and anabolic steroid. 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.

If a male has low level of testosterone, the symptoms can include erectile dysfunction, and reduced bone mass and sex drive. The hormone has many functions, including: the development of the bones and muscles. The deepening of the voice, hair growth, and other factors related to the appearance.

If a man has high level of testosterone, the effect of excess testosterone depends on both the age and sex. In both male and females, too much testosterone can lead to precocious puberty and result in infertility. In women, high blood levels of testosterone may also be an indicator of polycystic ovary syndrome.