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Sub \Rightarrow "Sir Shahzeb"

Q=1 Ans.

Part "A"

Ans

Physiology of the male reproductive system:

The male reproductive system consist of the internal structure:- The testes, epididymis, vas deference, prostate, and the external organ structure:- the scrotum and penis.

These structure are well vascularized with many glands and ducts to promote the formation, storage, and ejaculation of sperm for fertilization and to produce important androgens for male development. The major male androgen is testosterone which is produced from Leydig cells

in the testes. Testosterone can be converted in the periphery to a more active form, dihydrotestosterone via 5α -reductase, or estradiol via aromatase. Other key hormones include inhibin B and mullerian inhibiting substance (MIS) hormone, both produced by the sertoli cells in the testes - Important hormones that modulate these include follicle stimulating hormones (FSH) and luteinizing hormones which are released from the anterior pituitary gland and are regulated by gonadotropin-releasing hormones produced by the hypothalamus. Together, these hormones form the hypothalamic pituitary-gonadal axis that promotes and maintains sexual development and function in the male.

"Part B"

Spermatogenesis:-

is the process by which haploid spermatozoa develop from germ cells in the seminiferous tubules of the testes. This process starts with mitotic division of the stem cells located close to the basement membrane of the tubules. These cells are called spermatogonial stem cells.

⇒ Reproductive Gland:-

A Gonad sex gland, or reproductive gland that produces the gametes and sex hormones of an organism.

In the female of the species the reproductive cells are the egg cells & in the male the reproductive cells are the sperm.

⇒ Hormones & their regulation:-

During hormones regulation, hormones are released, either directly by an endocrine gland or indirectly through the action of the hypothalamus of the brain which stimulate the other endocrine glands to release hormones in order to maintain homeostasis.

"Low frequency"

Q=2 Ans

Part "A"

ans:- Female Reproductive System:-

The reproductive system in females is responsible for producing gametes (called eggs or ova) certain sex hormones, & maintaining fertilized egg as they developed into a mature fetus and become ready for delivery. A females reproductive system

years are those B/w menarche (the first menstrual cycle) and menopause. During this period cyclical expulsion of ova from the ovary occurs, with the potential to become fertilized by male gametes (sperm). This cyclic expulsion of egg is a normal part of the menstrual cycle.

* Development:-

Females gametes derived from the germ cells - In utero, oogonia rapidly divided until approximately 7 million germ cells form by the 7th month of gestation. The number of germ cells then rapidly declines - most oogonia perish while the remaining cells primary oocytes - begin the first meiotic division. These cells arrest in prophase I and remain dormant as such until menarche.

Organ System involved:-

female reproductive organ

- ↳ Ovaries.
- ↳ Fallopian tubes.
- ↳ Uterus.
- ↳ Vagina.
- ↳ Vulva.

"Part B"

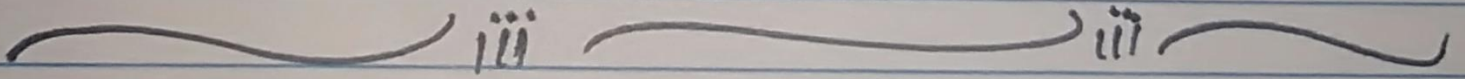
Ans:- Ovulation:-

Refers to the release of an egg during menstruation in females - Part of the ovary called the ovarian follicle discharge an egg. The egg is also known as ovum-ocyte, or female gametes. It is only released on ~~A~~ reaching maturity.

* Hormones Regulation:-

Gonadotropin secretion is regulated by gonadotropin releasing hormones, and various peptide released by the dominant follicle - Also as mentioned

earlier, FSH is elevated during the early follicular phase and then begins to decline until ovulation.



The
End.