

CBSE Class 12 Biology
Important Questions
Chapter 3
Human Reproduction

2 Marks Questions

1. Give the function of

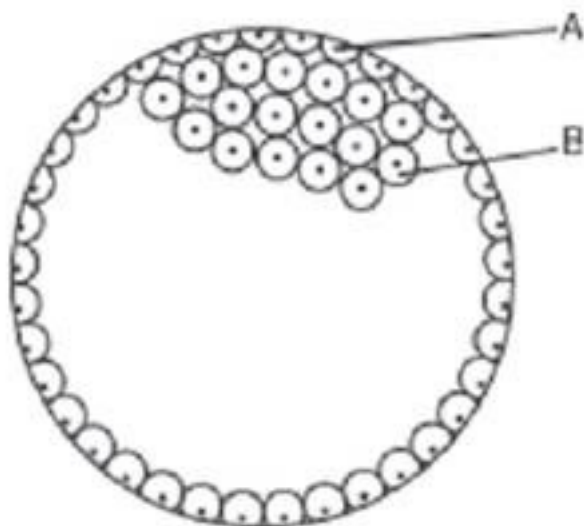
(a) Corpus luteum

(b) Endometrium

Ans. Corpus luteum : It secretes progesterone which prepares endometrium of uterus for implantation and normal development of foetus.

Endometrium : It undergoes cyclic changes during menstrual cycle and prepares itself for implantation of blastocyst.

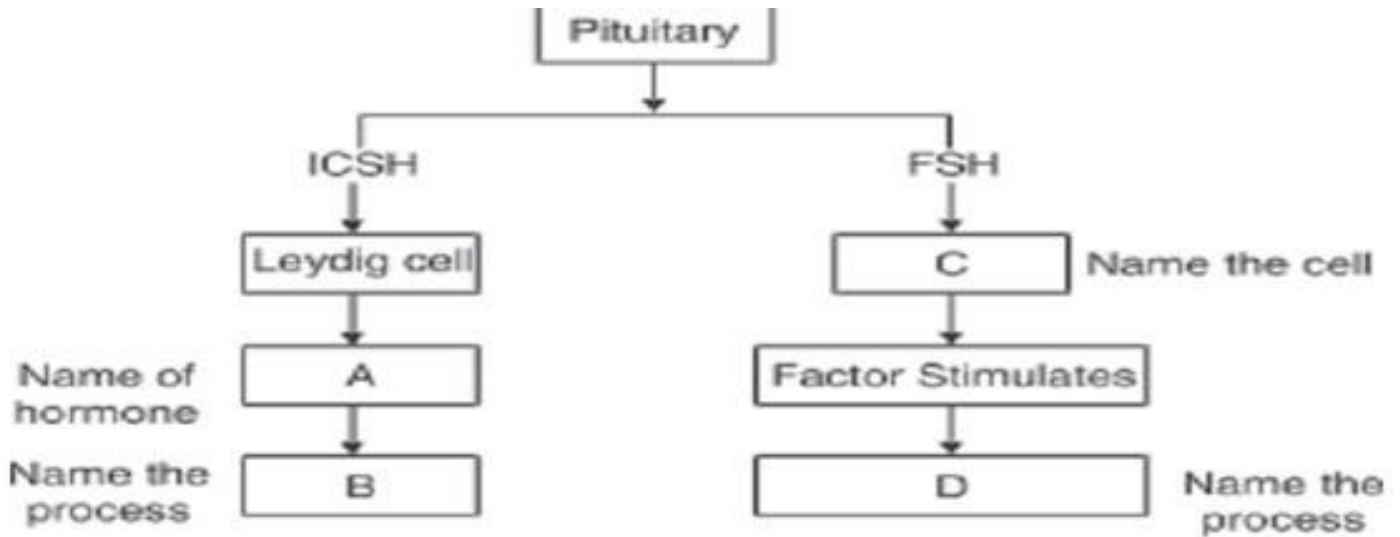
2. In the given figure, give the name and functions of parts labeled A and B.



Ans. A = Trophoblast Gets attached to endometrium and draws nutritive material secreted by uterine endometrium gland.

B = Inner cell mass Differentiates as Embryo.

3. Given below is an incomplete flow chart showing influence of hormone on gametogenesis in male, observe the flow chart carefully and fill in the blank A, B, C and D.



Ans. A = Testosterone; B = Spermatogenesis

C = Sertoli cells; D Spermioogenesis

4. Give reason for the following :

(a) The first half of the menstrual cycle is called follicular phase as well as proliferative phase.

(b) The second half of the menstrual cycle is called luteal phase as well as secretory phase.

Ans. (a) During this phase, primary follicles transform into Graafian follicle under FSH stimulation. Graafian follicles secrete estrogens which stimulate enlargement of Endometrium of uterus.

(b) During this phase, Corpus luteum is fully formed and secretes large quantity of Progesterone.

5. What is meant by L.H. Surge? Write the role of L.H.

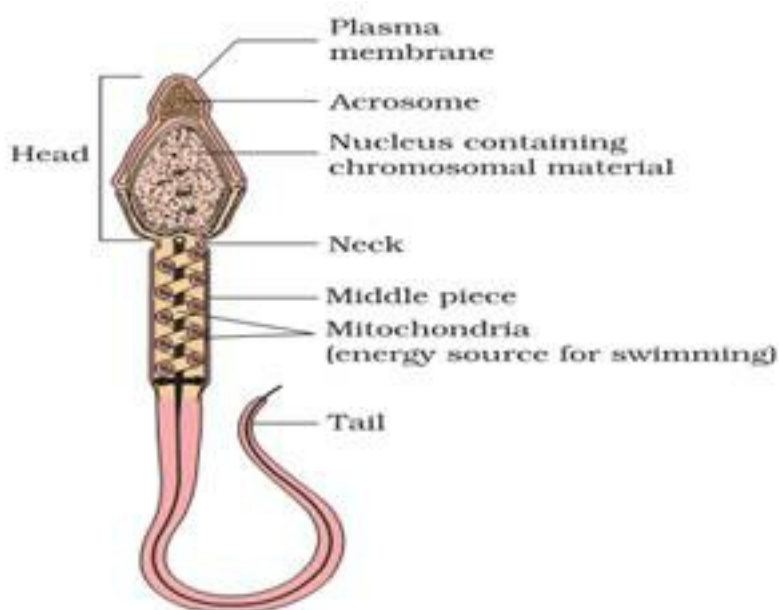
Ans. There are three phases in your menstrual cycle – follicular phase, ovulatory phase and luteal phase. In terms of the luteinizing hormone (LH) surge, the ovulatory phase is most important. During the follicular phase the follicle develops at the beginning of the menstrual cycle. This cycle begins with the menstrual period, the shedding of the iuterine lining and the shedding cleanses the lining of the uterus in preparation for ovulation during the ovulatory phase.

6. Explain significance of the condition in which the testes remain suspended in scrotum outside the abdomen.

Ans. Human sperm cells cannot develop at body temperature. Spermatogenesis and maintenance of the seminiferous tubules requires a temperature slightly lower than that of the body. This is provided by the scrotum, which lies outside the abdominal cavity.

7. Describe the structure of a sperm with a diagram.

Ans. The human sperm is a microscopic structure with a head, middle piece and a tail. The head has the haploid nucleus and an anterior acrosome that contains the enzymes required for the fertilization of the egg. The middle piece has numerous mitochondria to produce the energy for the mobility of the tail of the sperm.



8. Enlist any two functions of a female placenta.

Ans. The structural and the functional unit between the developing embryo and the mother called placenta facilitates the supply of nutrients, oxygen to the embryo and also the removal of carbon dioxide and other excretory products produced by the embryo. It also acts as endocrine tissue and produces several hormones

9. What is the number of chromosomes in the following cells? Primary oocyte, secondary oocyte, ootid and follicle.

Ans. The number of chromosome in the cells is as follows:

Primary oocyte: 23 pairs. Secondary oocyte: 23. Ootid: 23. Follicle: 23 pairs.

10. What is corpus luteum. How dose it functions as endocrine gland?

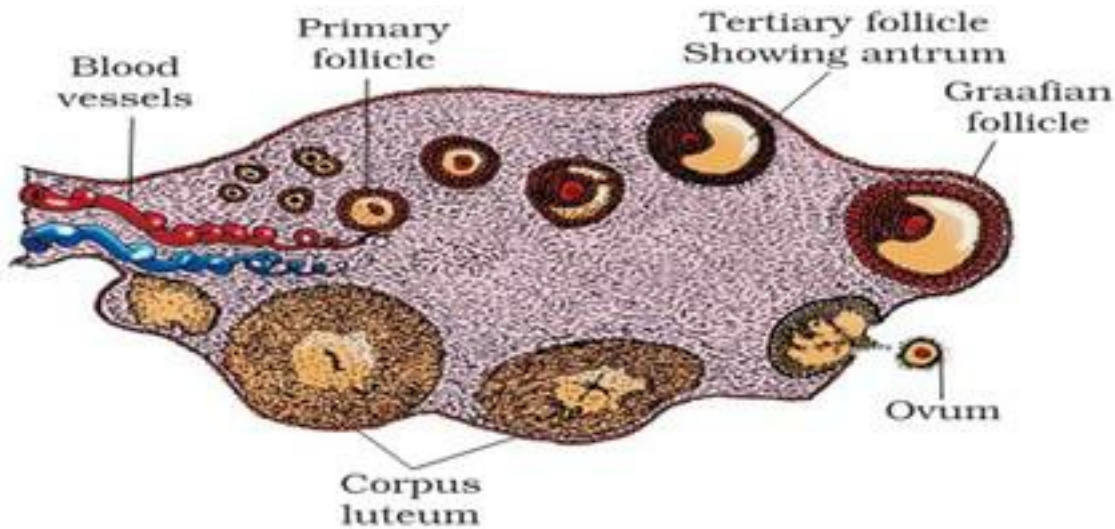
Ans. After ovulation, the graffian follicle ruptures & forms corpus luteum. Corpus luteum functions as endocrine glands as they secrete progesterone & estrogen in large quantities.

11. Where are leydig cells located? What do they secrete?

Ans. Leydig cells or interstitial cells are located in between the sominiferous tubules. Leydig cells secrete male sex hormone TESTOSTERONE which promotes development of accessory glands & control male secondary sexual characters.

12. Draw well labeled diagram of T.S. of ovary?

Ans.

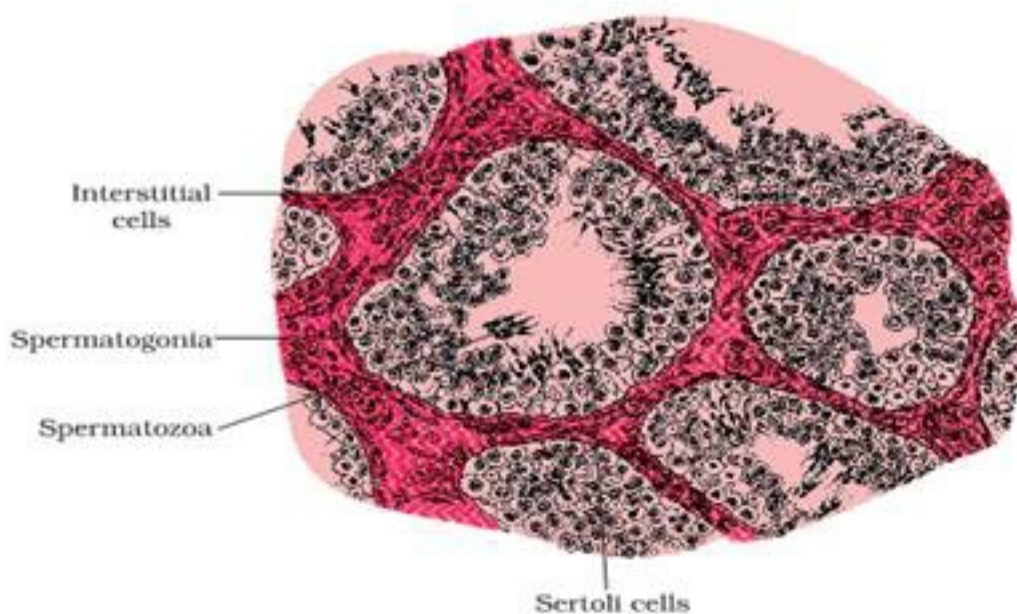


13. Why testes of human males are considered extra abdominal? What is the significance of this condition?

Ans. Testis in human males are called extra- abdominal because testis are located outside the abdominal cavity in a pouch called scrotum which provides a temperature 2-3oC lower than body temperature necessary for spermatogenesis.

14. Draw a diagram of the T.S. of seminiferous tubule of testis of an adult human male & label any four parts in it.

Ans.



15. What is colostrum? What is its significance to new born baby?

Ans. The milk secreted from mammary glands just after birth for 2 or 3 days is called colostrum. It is rich in proteins & low in fats. It also contains antibody IgA which provides immunity to new born infant.