

CBSE Test Paper 02
Ch-3 Human Reproduction

1. The primary sex organ of human male is
 - a. Scrotum
 - b. Urethra
 - c. Testis
 - d. Penis
2. Phenomenal and rapid increase of population in a short period is called
 - a. Population growth
 - b. Natural growth
 - c. Population explosion
 - d. Population enhancement
3. The cellular layer that disintegrates and regenerates again and again is
 - a. Endometrium of blood vessels
 - b. Dermis of skin
 - c. Endometrium of uterus
 - d. Cornea of eye
4. Urethra is an 8 to 10 inch long muscular tube. The urethra passes through the prostate glands and end at the
 - a. Internal urethral orifice
 - b. Ejaculatory duct
 - c. Seminal vesicles.
 - d. External urethral orifice
5. The inner cell mass which have potency to give rise all tissue and organs is called
 - a. Stem cells
 - b. Germ cells
 - c. Cleavage cells
 - d. Embryo cells
6. How many eggs do you think were released by the ovary of a female dog which gave birth to 6 puppies?
7. At what stage of life oogenesis is initiated in a human female? When does the oocyte

complete oogenesis?

8. Menstrual cycle ceases during pregnancy. (True/False)
9. Despite their many differences, male and female reproductive system have two purposes in common. What are they?
10. A popular TV programme shows in some village, girls are killed soon after their birth. Do you approve such practice? What impact does it have on population?
11. Where do the signals for parturition originate from in humans?
12. Draw a labelled diagram of a section through ovary.
13.
 - i. Draw a labelled diagram of the human female reproductive system
 - ii. Enumerate the events in the ovary of a human female during:
 - a. Follicular phase
 - b. The luteal phase of the menstrual cycle

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Answer

1. c. Testis, **Explanation:** Testis is the primary sex organ in human male as it produce sperm or male gametes without which reproduction is not possible.
2. c. Population explosion, **Explanation:** Rapid increase of population in a short period of time is called population explosion. It can be checked by using contraceptive methods.
3. c. Endometrium of uterus, **Explanation:** Endometrium is the inner lining of uterus which disintegrates and regenerates again and again during menstrual cycle.
4. d. External urethral orifice, **Explanation:** Semen passes from the ejaculatory duct to the exterior of the body via urethra. The urethra passes through the prostate glands and ends at the external urethral orifice.
5. a. Stem cells, **Explanation:** The inner cell mass (embryo) contains certain cells called stem cells that have capability to give rise to all tissues or organ in adult.
6. Dogs and rodents are polyovulatory species. In these species, more than one ovum is released from the ovary at the time of ovulation.

Hence, six eggs were released by the ovary of a female dog to produce six puppies

7. Oogenesis is initiated during the embryonic stage of a female foetus.

Oocyte completes oogenesis when a sperm enters the secondary oocyte.

8. True because oestrogen hormone is lowered due to which ovulation does not occur.
9. Development of gametes and delivery of gametes to the site of fertilization.
10. No, I do not approve such practice as girls are equally important in the society. Otherwise the sex ratio will decrease.

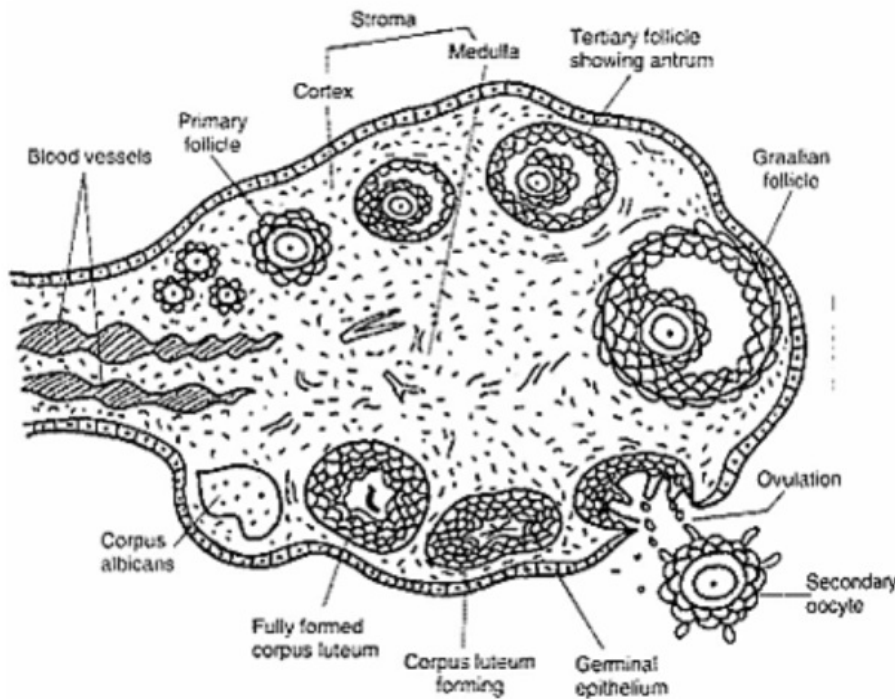
Values

- Sensitivity to words others

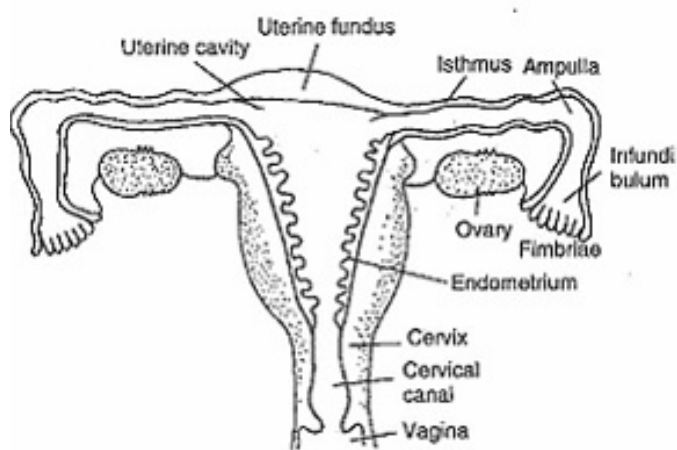
- Awareness

11. The signals for child birth originate from the fully matured foetus and placenta which induce mild uterine contractions called foetal ejection reflex.

12.



13. i.



ii. a. Follicular phase: It follows the menstrual phase and lasts for about 14 days. In the beginning, FSH and LH are secreted from the anterior pituitary upon a signal from hypothalamic GnRH, and stimulates follicular development as well as secretion of estrogen by the follicles.

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- Initially, the increase in plasma estrogen levels inhibits FSH and LH through negative feedback. The decline in FSH tends to inhibit further follicle development except the dominant follicle selected for ovulation.
 - Estrogen stimulates the proliferation of the endometrium, which becomes thicker by rapid cell multiplication.
 - As the blood estrogen concentration continues to increase, it causes positive feedback stimulation on the pituitary and enhances the production of LH. Rapid secretion of LH leading to its maximum level during the mid-cycle called LH surge.
- b. Luteal phase: The ovulation is followed by the luteal phase, which lasts for about 10 days in a 28-day cycle. During this phase, the remaining parts of Graafian follicle transform as the corpus luteum, which increases in size and is fully formed on the 19th day.
- Corpus luteum secretes progesterone hormone whose level in the blood increases (reaches maximum by 21st day of cycle)
 - Progesterone stimulates the continued growth of the superficial layer of endometrium and endometrium becomes ready for implantation.
 - During pregnancy, all events of the menstrual cycle stop and there is no menstruation. In the absence of fertilization, the corpus luteum degenerates and causes the disintegration of the endometrium leading to menstruation, marking a new cycle.