

SHORT ANSWER TYPE QUESTIONS (3 marks)

21. Draw a labelled diagram of a sectional view of human ovary showing various stages of follicles up to release of the ovum.
22. (a) Enlist the components of seminal plasma.
(b) Give role of Cowper's gland
(c) How many autosomes are found in a single mature human sperm?
23. (a) How spermiogenesis is different from spermiation?
(b) Draw a section of seminiferous tubule showing the following labelling.
(i) Spermatogonium (ii) Secondary spermatocyte (iii) Spermatozoon (iv) Sertoli cells
24. (a) Name the hormones produced only during pregnancy in human female and mention their source organs.
(b) Mention the role of Leydig cells.
25. (a) When and how does placenta develop in human females?
(b) How is the placenta connected in embryo? (c) The placenta acts as an endocrine gland. Explain.
26. (a) Why all copulation never leads to pregnancy?
(b) How ovum ensures entry of only one sperm inside it?
(c) Define lactation and give the role of colostrum. (d) Discuss "LH Surge".

LONG ANSWER TYPE QUESTIONS (5 marks)

27. Describe the changes that occur in ovaries and uterus in human females during the reproductive cycle.
28. (a) Schematically represent oogenesis.
(b) Enlist two pituitary and 2 ovarian hormones involved in oogenesis.
29. (a) Draw a Graafian follicle and label antrum and secondary oocyte.
(b) Which embryonic stage gets implanted in the uterine wall of a human female?
(c) Give the role of oxytocin (d) Mention the major role played by the placenta.
(e) Name the layers differentiated from the inner cell mass.
30. (a) What do you mean by ootid? (b) When does oogenesis begin?
(c) During puberty how many primary follicles found in each ovary?
(d) Write a brief note upon mammary gland.

HOTS/MODEL QUESTIONS:

- 01.** List the changes the primary oocyte undergoes in a tertiary follicular stage in the human ovary.
- 02.** Define semen.
- 03.** Note all copulations lead to pregnancy. Give reason.
- 04.** What is the 1st sign of growing foetus?
- 05.** Define the luteal phase.
- 06.** Bring out differences between secondary and tertiary follicle.
- 07.** Why is it important to feed the newborn babies on colostrum?
- 08.** Draw a diagram of the structure of a human ovum surrounded by corona radiata. Label the following parts.
 - (a) Ovum
 - (b) Zona Pellulida
 - (c) Plasma membrane
- 09.** Name two hormones, which are secreted by it and are also present in non-pregnant women.
- 10.** Differentiate between menarche and menopause.
- 11.** Write the location and function of following in human testes.
 - (a) Sertoli cells
 - (b) Leydig cells.
- 12.** Write note upon external genitalia in the female.
- 13.** Explain the role of pituitary and sex-hormone in spermatogenesis.