Chapter- 03

Human Reproduction

VERY SHORT ANSWER QUESTIONS (1 mark)

- **01.** Give the role of accessory duct in the human male reproductive system.
- **02.** Name the cells that nourish germ cells in testis.
- **03.** Why is the middle piece of human sperm considered as the powerhouse of the sperm?
- **04.** What is cleavage?
- **05.** Why is the follicular phase also called proliferative phase?
- **06.** Name the location where fertilisation occurs in human.
- **07.** Mention the role of Infundibulum and name the finger-like projections present in it.
- **08.** What is the function of trophoblast in a human embryo?
- **09.** Define placenta.
- **10.** What is meant by the gestation period?

SHORT ANSWER TYPE QUESTIONS (2 marks)

- **11.** Write notes upon :
 - (a) Mons Pubis
- (b) Clitoris
- **12.** Why are human testes located outside the abdominal cavity? Name the pouch in which they are present.
- **13.** Name the muscular and glandular layers of the human uterus. Which one of these layers undergoes cyclic changes during the menstrual cycle?
- **14.** Mention the sites of action of hormones GnRH and FSH during spermatogenesis in human males. Give one function of each of the hormones.
- **15.** Mention the fate of corpus luteum and its effect on the uterus in the absence of fertilisation of ovum in the human female.
- **16.** When and where do chorionic villi appear in humans? State their function.
- **17.** Expand ICM in a human embryo. Explain the role of ICM.
- **18.** Why is parturition called a neuroendocrine mechanism? Explain.
- **19.** (a) Define menarche and menopause.
 - (b) State a point of difference between morula and blastocyst.
- 20. Draw a neat diagram of mature human sperm with four different labellings.

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) Spematid
- (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 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.