

Mode of Examination: Open Book Examination

Unique Paper Code : 32237910
Name of the Paper : DSE: Reproductive Biology
Name of the Course : B.Sc. (Prog.) Life Science Examination, 2021_LOCF
Semester : V
Medium of setting the Question paper : English

Instruction for Students

Write your Roll No., Name of the paper, Course, Semester, and Date of examination on the first page of answer sheet.

Attempt **ANY FOUR** questions. All questions carry equal marks.

- Q 1. Trace the course of sperm through the system of ducts from the seminiferous tubules to the urethra. List the structures within the spermatic cord. Discuss capacitation and sperm maturation in female reproductive tract.
- Q 2. Explain diagrammatically folliculogenesis in female and its regulation. Add a note on the various types of follicles observed.
- Q 3. Explain the following statements:
- i. The differentiation of two sexes depends on the endocrine activity of the fetal testis.
 - ii. The site of implantation is crucial for a successful pregnancy
 - iii. Galactopoesis does not start till the placenta is expelled out.
 - iv. Placenta is a transient endocrine organ
- Q 4. What are the features of an ideal contraceptive device. Discuss the mode of action, advantages and disadvantages of hormonal contraceptives.
- Q 5. Discuss the significance of the fetoplacental unit in synthesis of estriol. Why is estriol considered to be a marker for well-being of fetus and placenta?
- Q 6. Describe the genetic basis of sex determination with examples. Explain the various sex-determination systems. What are the other factors that play a role in sex determination? Explain with relevant examples.