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24-ZO-42

**M.Sc. IV SEMESTER [MAIN/ATKT] EXAMINATION
JUNE - JULY 2024**

ZOOLOGY

Paper - II

[Gamete Biology Development and Differentiation]

[Max. Marks : 75]

[Time : 3:00 Hrs.]

[Min. Marks : 26]

Note : Candidate should write his/her Roll Number at the prescribed space on the question paper.
Student should not write anything on question paper.
Attempt five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 Explain the Biochemistry of Fertilization.

OR

Write an essay on Spermatogenesis.

Q. 2 Describe the sex determination and give comparative account of sex determination.

OR

Explain the ovarian follicular growth and differentiation.

Q. 3 Discuss about hormonal regulation of development of mammary gland and lactation.

OR

Write an essay on role of hormones in physiology of placenta.

Q. 4 Describe the structure of gonads and explain its development.

OR

Explain germ cell determinants and germ cell migration.

Q. 5 Write short notes on **any two** -

- i) Totipotency.
- ii) Stem cell disorders.
- iii) Cell diversification.
- iv) Evolutionary mystery of cell.