

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2022
(Regular/Improvement/Supplementary)

ZOOLOGY

FZOL2C06: DEVELOPMENTAL BIOLOGY & ENDOCRINOLOGY

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries 2 weightage.

1. Mention the mechanism of formation of fertilization membrane.
2. What is DNA methylation? How it is important?
3. Comment on embryonic fields.
4. Describe the hormonal control of pregnancy.
5. Give a short note on anterior – posterior patterning in *Drosophila*.
6. What are eicosanoids? Explain their hormonal action.
7. Discuss the physiological function of glucocorticoids.

(4×2 = 8 weightage)

Part B: Answer any *four* questions. Each carries 3 weightage.

8. Give an account on paracrine factors.
9. Comment on differential RNA processing.
10. Write on environmental disruption of normal development.
11. Explain metamorphosis in Amphibians and its hormonal control.
12. Describe the receptor mediated signal transduction in endocrine function.
13. Comment on physiological role of hormones.
14. Describe the anatomy of pancreas gland and functions of the hormones secreted.

(4×3 = 12 weightage)

Part C: Answer any *two* questions. Each carries 5 weightage.

15. Discuss the control of gene expression at the level of translation. Add a note on post translational regulation of gene expression.
16. Write an essay on different types of regeneration and histological process during regeneration.
17. Explain the primary and secondary sex determination in Mammals.
18. Describe the hormones secreted by adenohipophysis and its pathophysiology.

(2×5 = 10 weightage)