

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**M.Sc. DEGREE EXAMINATION – ZOOLOGY**

**FIRST SEMESTER – NOVEMBER 2019**

**PZO 1503 – ADVANCED DEVELOPMENTAL BIOLOGY**

Date: 05-11-2019

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART – A

Answer all questions

(10 x 2 = 20)

1. Define mosaic and chimera with examples?
2. Explain microinjection.
3. Comment on the significance of thyroxin in metamorphosis.
4. Define cholangiocytes.
5. Differentiate heterochromatin from euchromatin.
6. Comment on apoptosis.
7. Define antimullerian hormone and its significance.
8. Write the functions of Estrogen.
9. Define cryopreservation.
10. Define ICSI and its advantages.

PART – B

Answer any FOUR questions

(4 x 10 = 40)

11. Give an account on morphogenetic gradients
12. Write a paragraph on specification.
13. Describe the compensatory regeneration in mammalian liver.
14. Explain regulation of genes in prokaryotes.
15. Describe the different stages in parturition.
16. Describe any two non-invasive techniques of prenatal diagnosis and its advantages.

PART – C

Answer any TWO questions

(2 x 20 = 40)

17. a) Write an essay on microsurgical techniques in developmental biology.  
b) List the advantages of microsurgical techniques.
18. a) What are the different types of metamorphosis?  
b) Enumerate the changes that occur in amphibian metamorphosis.
19. a) Define placenta.  
b) Describe the formation, structure and functions of placenta.
20. a) Define IVF?  
b) Write a detailed account on IVF in cattle.

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