# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION - ZOOLOGY

FIRST SEMESTER - NOVEMBER 2013

#### **ZO 1822 - ADVANCED DEVELOPMENTAL BIOLOGY**

Date : 13/11/2013 Time : 1:00 - 4:00

## Part-A

Answer ALL the questions

- 1. Comment on the period of gestation.
- 2. What is GIFT?
- 3. Explain germline gene therapy.
- 4. Differentiate gestational age from embryonic age.

Dept. No.

- 5. Define superficial implantation.
- 6. What is endoamnioscope?
- 7. Classify morphogenetic movements and define.
- 8. What are germinal layer?
- 9. Comment on partial metamorphosis.
- 10. Compare promoter and operator.

#### Part-B

## Answer any FOUR questions

11. Write notes on the process of cloning.

- 12. Discuss aging and the biology of senescence.
- 13. Describe the ultrastructure of spermatozoa.
- 14. Give an account on ovulation, hormonal control and pregnancy.
- 15. Explain placenta and its function.
- 16. Give an account on mammalian liver regeneration.

#### Part-C

## Answer any TWO questions

- 17. Write an essay on signal transduction.
- 18. Give an account on cryopreservation.
- 19. Explain prenatal diagnosis.
- 20. Write an account on *in vitro* fertilization.

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Max.: 100 Marks

(10×2=20 Marks)

(4×10=40 Marks)

(2×20=40 Marks)