

D 52355

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Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2018

(CUCSS—PG)

Zoology

ZO3CT 08—DEVELOPMENTAL BIOLOGY AND ENDOCRINOLOGY

(2016 Syllabus Year)

Time : Three Hours

Maximum : 36 Weightage

Part A

I. Answer all *fourteen* questions. Each question carries 1 weightage :

- 1 Ultrastructure of egg.
- 2 What is Grey crescent ?
- 3 What is primary organiser ?
- 4 What is meroblastic cleavage ?
- 5 Define Blastocyst.
- 6 What is evagination ?
- 7 Distinguish between Heterotropy and Heterochrony.
- 8 What is Commitment ?
- 9 Autonomous specification.
- 10 Functions of thyroxine.
- 11 Physical characteristics of hormones.
- 12 Peptide hormones.
- 13 Name gases as Neural messengers.
- 14 Brain Hormones.

(14 × 1 = 14 weightage)

Part B

II. Answer any *seven* of the following. Each question carries 2 weightage :

- 15 Briefly explain axis formation in Amphibians.
- 16 Explain Grey crescent and its importance.
- 17 Explain Competence and induction with example.

Turn over

- 18 Write an account on Hematopoiesis.
- 19 Briefly explain differential RNA processing.
- 20 Briefly explain Embryonic Stem cells.
- 21 Dorso-ventral patterning in *Drosophila melanogaster*.
- 22 Feedback mechanism in any *one* of the hormones.
- 23 Write an account on Endorphins.
- 24 Physiological roles of androgens and oestrogens.

(7 × 2 = 14 weightage)

Part C

III. Answer any *two* of the following. Each question carries 4 weightage :

- 25 Write an account on differentiation of neural crest cells.
- 26 Write notes on Regeneration, types and histological process.
- 27 Write an account on metamorphosis in insects with example and their hormonal control.
- 28 Write notes on structure, function and control of hormone secretion in Adrenal gland.

(2 × 4 = 8 weightage)