

C 83638

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Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2015

(CUCSS)

Zoology

ZO 2C T06—DEVELOPMENTAL BIOLOGY AND ENDOCRINOLOGY

Time : Three Hours

Maximum : 36 Weightage

I. Answer all *fourteen* questions :

- 1 Induction.
- 2 Cell surface molecules in sperm-egg recognition.
- 3 Homeotic selector genes.
- 4 Cellular interactions in organogenesis.
- 5 RNA processing.
- 6 Heteromorphic regeneration.
- 7 Causes for aging.
- 8 Alcohol as teratogenic agent.
- 9 Insect leg organogenesis.
- 10 Peptides as chemical messengers.
- 11 Control of hormone secretion.
- 12 Types of Receptors.
- 13 Endorphins.
- 14 Pregnancy.

(14 × 1 = 14 weightage)

II. Answer any *seven* questions :

- 15 Discuss process of gastrulation in amphibians.
- 16 Explain the anterior posterior patterning in *Drosophila*.
- 17 Write environmental disruption of normal development.
- 18 Describe environmental sex determination.
- 19 Explain about histological process during regeneration.
- 20 Describe reversibility of gene activity.

Turn over

- 21 Discuss physiological role of hormones.
- 22 Write about cell types of islets of Langerhans.
- 23 Describe anatomy and functions of parathyroid.
- 24 Discuss eicosanoid hormone action.

(7 × 2 = 14 weightage)

III. Answer any *two* questions :

- 25 Discuss in detail molecular basis of development.
- 26 Discuss hormonal regulation of metamorphosis in amphibians.
- 27 Describe hormonal regulation of parturition and lactation.
- 28 Explain role of hypothalamus in regulating the function of hypophysis.

(2 × 4 = 8 weightage)