

C 63104

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Name.....55.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2014

(CUCSS)

Zoology

ZO 2C T06—DEVELOPMENTAL BIOLOGY AND ENDOCRINOLOGY

Time : Three Hours

Maximum : 36 Weightage

I. Answer all *fourteen* questions :

- 1 Competence.
- 2 Blastula formation.
- 3 Hox code hypothesis.
- 4 Bicoid gradient.
- 5 Cadherins.
- 6 Morphallactic regeneration.
- 7 Extra cellular aging.
- 8 Bisphenol as teratogenic agent.
- 9 Insect wing organogenesis.
- 10 Pheromones as chemical messengers.
- 11 Hormone storage and secretion.
- 12 Receptor activation.
- 13 Steroid hormones.
- 14 Lactation.

(14 × 1 = 14 weightage)

II. Answer any *seven* questions :

- 15 Discuss left right patterning-dorsal protein gradient.
- 16 Explain vulva formation in *Coenorhabditis elegans*.
- 17 Write changes during formation of germ layers in amphibia.
- 18 Describe sex determination in *Bonellia*.
- 19 Explain about oxidative damage during aging.
- 20 Describe axis formation in amphibians.

Turn over

- 21 Discuss class of chemical messengers
- 22 Write about structure and function of thyroid.
- 23 Describe anatomy and functions of hypothalamus.
- 24 Discuss cell signalling.

(7 × 2 = 14 w

II. Answer any *two* questions :

- 25 Discuss in detail models of cell differentiation.
- 26 Discuss metamorphosis in insects.
- 27 Describe hormones involved in female reproductive physiology.
- 28 Explain role of hypophysis in regulating other endocrine glands.

(2 × 4 = 8 w