

**17P323**

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Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018**

(CUCSS - PG)

**CC17P ZO3 CT08 - DEVELOPMENTAL BIOLOGY AND ENDOCRINOLOGY**

(Zoology - Regular)

(2017 Admission)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* the fourteen questions:

1. Morphogenetic gradients.
2. Heteromorphic regeneration.
3. Embryonic fields.
4. Environmental sex determination.
5. Potency.
6. Homeotic selector genes.
7. Competence.
8. Teratogens.
9. Paracrine factors.
10. Ecosanoids.
11. Regulation of receptor number.
12. Neural messengers.
13. Islets of Langerhans.
14. Goiter.

**(14 x 1= 14 Weightage)**

II. Answer any *seven* of the following questions:

15. Describe the hormonal control of amphibian metamorphosis.
16. Explain the molecular basis of differentiation.
17. Write on environmental disruption of normal development.
18. Describe the cellular interactions concerned in fertilization.
19. Explain anterior –posterior patterning in *Drosophila*.
20. Describe the causes of ageing.
21. Discuss the physiological functions of glucocorticoids.
22. Explain the second messenger hormone action.
23. Describe the anatomy and functions of parathyroid.
24. Explain the physiological actions of androgens.

**(7 x 2 = 14 Weightage)**

III. Answer any *two* of the following questions:

25. Discuss in detail gene expression during development.

26. Write an essay on the process of regeneration.

27. Describe the role of hormones involved in female reproductive physiology.

28. Explain the role of hypothalamus in regulating the function of hypophysis.

**(2 x 4 = 8 Weightage)**

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