

15P216

(Pages: 2)

Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JULY 2016

(CUCSS - PG)

(Zoology)

CC 15P ZO2 C06 - DEVELOPMENTAL BIOLOGY & ENDOCRINOLOGY

(2015 Admission)

Time: Three Hours

Maximum: 36 Weightage

I. Short answer (Answer *all* questions)

1. Induction.
2. Bicoid gradient.
3. Cleavage.
4. Morphallactic regeneration.
5. Free radical theory of aging.
6. Extra cellular ageing.
7. Retinoic acid as teratogen.
8. IP3
9. Compétence.
10. Bone remodeling.
11. Hormones involved in calcium homeostasis.
12. Hormones of adrenal cortex.
13. Islets of Langerhans.
14. Somatostatin.

(14 x 1 = 14 weightage)

II. Short Essay (Answer any *seven* questions)

15. Explain vulval induction in *Caenorhabditis elegans*.
16. Describe sex determination in *Bonellia*.
17. Explain about oxidative damage during aging.
18. Explain anterior-posterior polarity formation in the oocyte of *Drosophila*.
19. Explain proximal-distal axis generation during tetrapod limb development.
20. Explain endocrine control of male sexual functions.
21. Explain the physiological roles of androgens.
22. Write notes on Hormone receptors.

23. Explain physiological functions of Insulin.

(7 x 2 = 14 weightage)

III. Long Essay (Answer any *two* questions)

24. Write an essay on axis formation in *Drosophila*.

25. Discuss metamorphosis in amphibians.

26. Write an essay on aging.

27. Hormonal regulation of female monthly rhythm.

(2 x 4 = 8 weightage)
