18P323 (Pages: 2) Name……………………..

Reg. No…………………..

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2019
(Regular/Supplementary/Improvement)

(CUCSS – PG)

CC17P ZO3 C08 – DEVELOPMENTAL BIOLOGY AND ENDOCRINOLOGY
(Zoology – Regular)

(2017 Admission onwards)

Time: Three Hours   Maximum: 36 Weightage

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

1. What is compensatory regeneration?

1. Comment on insulators.

2. Write notes on JAK- STAT pathway.

3. What is HOX code hypothesis?

4. What is Heterometry?

5. Write the name and role of vertebrate hedgehog genes.

6. What are cadherins?

7. What is polyphenism?

8. Comment on acrosome reaction.

9. Comment on receptor number.

10. Write a short note on releasing hormones.

11. Comment on gases as neural messengers.

12. What are pheromones?

13. Write a note on parathormone.

14. Write a short note on totipotency.

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions. Each question carries 2 weightage.

15. Comment on environmental oestrogens.

16. Describe the mechanism of fast and slow block to polyspermy.

17. Write an account on major teratogenic agents.

18. Comment on paracrine factors.

19. Describe the histological process during regeneration.

20. Comment on the specification of the anterior posterior limb axis in chick.

21. Comment on eicosanoids and their physiological role.

22. Describe anatomy and functions of pancreas.

23. Comment on hormones of adrenal gland.

24. Brain hormones and behaviour.

(7 x 2 = 14 Weightage)

III Answer any *two* questions. Each question carries 4 weightage.

25. Write an essay on anterior posterior patterning in amphibians.

26. Explain the various mechanisms of gene regulation at the level of transcription.

27. Write an essay on mechanism of hormone action.

28. Write an essay on hormonal control of pregnancy and parturition.

(2 x 4 = 8 Weightage)

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