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1M3N17123 (Pages : 1) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2017

ZO3CT08 – Developmental biology & Endocrinology

(2016 Admission onwards)

Max. Time: 3 hours Max. Weightage: 36

1. Answer all the fourteenquestions (weightage-1)

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 anyseven of the following (weightage-2)

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.
23. Explain the physiological actions of androgens.

(7 x 2 =14 weightage)

III. Answer anytwo of the following (weightage-4)

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)

M3N17124 (Pages : 1) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2017

ZO3ET09 – Biodiversity & Biota

(2016 Admission onwards)

Max. Time: 3 hours Max. Weightage: 36

Make short note of the following

. Gangetic dolphin
. Bronze Winged Jacana
. Satpura hypothesis.
. Territoriality.
. Larger Cats.
. Micro chiropterans.
. Vocalisation in Birds.
. Indian Ape.
. Giant Panda.
0. Nilgiri Langur.
1. *Macaca silenus*.
2. Nilgiri Tahr.
3. Indian Pheasants.
4. Indian Proboscids.

(14 x 1 =14 weightage)

I. Comment on any seven of the following questions

5. Roosting characteristics of Bats.
6. Significance of Malabar civet.
7. Habitat selection in Nilgiri tahr.
8. Fly ways of migratory birds in India
9. Nest building in robins.
0. Gharials of Indian subcontinent
1. Economically important birds of India
2. Endangered and Endemic snakes of Western Ghats.
3. Courtship behaviour in flamingos.
4. Conservation strategies for Indian turtles

(7x 2 = 14 weightage)

III. Answer any two questions.

25. Give a brief account of the feeding and breeding habits of Passeriformes
26. Describe the socio-biology of deer.
27. Give a brief account of the endemic avian fauna of India.
28. Discuss the ecological role of larger cats of india.

(2 x 4 = 8 weightage)