

Q.P. Code – 50831

Third Year B.Sc. Degree Examination, OCTOBER/NOVEMBER 2016

(Directorate of Distance Education)

Zoology

**(DSC 311) Paper IV – DEVELOPMENTAL BIOLOGY, ENVIRONMENTAL
BIOLOGY, ETHOLOGY, INLAND FISHERIES AND
WILD LIFE MANAGEMENT**

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) *Students who have attended **25** marks **I-A** Scheme will have to answer for total of **75** marks.*
- 2) *Students who have attended **15** marks **I-A** Scheme will have to answer for total of **85** marks.*
- 3) *One mark questions should be answered in first two pages of the answer book.*
- 4) *Draw neat labelled diagrams wherever necessary.*
- 5) *Question No. **V** is **compulsory** for **85**-marks scheme.*

I. Simple Answer Questions :

10 × 1 = 10

Answer in a word or a phrase or a sentence :

1. What is ecological niche?
2. Define cleavage.
3. What is anadromous migration?
4. Define innate-behaviour.
5. What is natality?
6. Define emboly.
7. Name any two wild life sanctuaries.
8. Define courtship.
9. What are bio-degradable pollutants?
10. What is coeloblastula?

Q.P. Code – 50831

II. Short Answer Questions :

5 × 3 = 15

Answer any **FIVE** of the following :

11. Explain edge effect.
12. Classify the eggs based on amount of yolk.
13. Sketch and label a chick Egg.
14. State Leibig's law of minimum with example.
15. Explain parental care in Ichthyophis.
16. Mention the types of bird migration based on direction.
17. What are endangered animals? Give two examples.

III. Medium Answer Questions :

5 × 6 = 30

Answer any **FIVE** of the following :

18. Give an account of migration in Anguilla.
19. What is ecosystem? Discuss the abiotic and biotic components of pond ecosystem.
20. Explain ecological pyramids with example.
21. Explain the ecological adaptation of desert animals.
22. Explain the induced breeding technique of major carps.
23. Describe the process of cleavage in Frog.
24. Write a note on :
 - (a) Primary organizer
 - (b) Primitive streak stage

IV. Long Answer Questions :

2 × 10 = 20

Answer any **TWO** of the following :

25. Explain zonation of sea with the help of diagram. Add a note on adaptations of deep sea animals.
26. What is pollution? Explain causes and effects of water pollution. Add a note on its control.

Q.P. Code – 50831

27. Write a note on :

- (a) Fish Byproducts
- (b) Explain wildlife act.

28. Explain :

- (a) Gastrulation in amphioxus
- (b) Blastula of Frog

V. Compulsory Question for 85 marks scheme only :

1 × 10 = 10

Answer any **ONE** of the following :

29. What is food chain? Explain the different types of food chain with examples.

30. Explain :

- (a) Types of Placenta based on distribution of villi
- (b) Courtship behaviour in Bower bird and Betta splendens
