

**Q.P. Code – 50831**

**Final Year B.Sc. Degree Examination**

**SEPTEMBER/OCTOBER 2013**

**(Directorate of Distance Education)**

**Zoology**

**(DSC 320) Paper IV – DEVELOPMENTAL BIOLOGY,  
ENVIRONMENTAL BIOLOGY, ETHOLOGY, INLAND FISHERIES  
AND WILD LIFE MANAGEMENT**

*Time : 3 Hours]*

*[Max. Marks : 75/85*

- Instructions :**
- 1) *Students who have attend 25 marks I-A scheme will have to answer for total of 75marks.*
  - 2) *Students who have attended 15 marks I-A scheme will have to answer for total 85 marks.*
  - 3) *All questions are compulsory.*
  - 4) *Simple question should be answered in first two pages of the answer books.*
  - 5) *Draw neat labeled diagrams wherever necessary.*
  - 6) *Question No. V is compulsory for 85 marks scheme.*

I. Simple answer questions :

Answer in a word, phrase or a sentence :

**10 × 1 = 10**

1. Define Ecological Niche.
2. What is food chain?
3. What is centrolecithal egg?
4. Define Ethology.
5. What is catadromous migration?
6. What is innate behavior?
7. What is meroblastic cleavage?
8. What is archentron?
9. Name any two national parks of Karnataka.
10. What is Biological Magnification?

**Q.P. Code – 50831**

II. Short answer questions :

Write any **FIVE** of the following :

**5 × 3 = 15**

11. Explain the types of Bird migration.
12. Name any three types of cleavages with examples.
13. Classify egg on the basis of the distribution of yolk with examples.
14. Explain the scope of Inland fisheries.
15. Write a note on fish Induced Breeding.
16. Explain Leibig's law of minimum.
17. Write short note on importance of wild life studies.

III. Medium answer questions :

Answer any **FIVE** of the following :

**5 × 6 = 30**

18. Explain gastrulation in Amphioxus.
19. Describe different types of blastula with Diagram.
20. Explain the biota of desert biome and their adaptations.
21. Explain catadromous migration in fishes with suitable examples.
22. Describe courtship in Betta splendens and bowerbird.
23. Explain culturing of major carps.
24. Explain importance and methods of wild life conservation.

IV. Long answer questions :

Answer any **TWO** of the following :

**2 × 10 = 20**

25. Explain sources, causes and effects of air pollution.
26. What is placenta? Classify placenta based on morphology with examples.
27. Explain zonation of lotic habitat, its biota and their adaptations.
28. Describe the parental-care in Racophorus and Pipa americana.

**Q.P. Code – 50831**

V. **Compulsory** question for **85** marks scheme only :

Long answer question :

Answer any **ONE** of the following :

**1 × 10 = 10**

29. What are foetal membranes? Explain structure and functions of foetal membranes in chick.
30. Write short note on:
- (a) Deep sea adaptation
  - (b) National parks and sanctuaries
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