



**DSC – 311**

**Final Year B.Sc. Degree Examination, September/October 2012**

**Directorate of Distance Education**

**ZOOLOGY**

**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 attended 25 Marks IA Scheme will have to answer for total of 75 Marks.*
  - 2) *Students who have attended 15 Marks IA Scheme will have to answer for total of 85 Marks.*
  - 3) **All questions are compulsory.**
  - 4) *Simple questions should be answered in first two pages of the answer book.*
  - 5) *Draw labeled diagrams wherever necessary.*
  - 6) **Question No. V is compulsory for 85 Marks Scheme.**

I. Simple answer questions :

**(1×10=10)**

Answer in a word. A phrase or a sentence.

- 1) Name an endangered mammal of India.
- 2) Define cleavage.
- 3) What is food chain ?
- 4) What is BOD ?
- 5) What is Biological magnification ?
- 6) What is instinct ?
- 7) What is Hypophysation ?
- 8) What is Chordomesoderm ?
- 9) What is Biome ?
- 10) What is discoblastula ?

II. Short answer questions :

**(5×3=15)**

Write **any FIVE** of the following :

- 11) What is Edge effect ?

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- 12) Describe the Amphiblastula.
- 13) What are morphogenetic movements ? Mention morphogenetic movements in frog.
- 14) Explain Leibig's law of minimum with an example.
- 15) Explain the advantages of Bird migration.
- 16) What is chemotaxis ? Give example.
- 17) Explain the scope of Inland fisheries.

III. Medium answer questions : (5×6=30)

Answer **any FIVE** of the following :

- 18) Bring out the differences between National Parks and Wild life sanctuaries. Give two examples for each.
- 19) Give an account on fish by products.
- 20) Describe 18 hrs chick embryo with the help of diagram.
- 21) Explain Anadromous migration in fishes with suitable examples.
- 22) Describe the biota of desert biome and their adaptations.
- 23) Explain parental care in Ichthyophis and Hyla goeldi.
- 24) Explain gastrulation in Amphioxus.

IV. Long answer questions :

Answer **any TWO** of the following :

(2×10=20)

- 25) Explain sources, causes and effects of water pollution.
- 26) What are egg membranes ? Explain with the help of examples.
- 27) What is courtship ? Explain courtship in *Betta splendens* and Bower bird. Add a note on significances of courtship behaviour.
- 28) Explain zonation of lotic habitat, its biota and their adaptations.

V. (**Compulsory** questions for **85** marks scheme only)

Long answer question :

(1×10=10)

Answer **any ONE** of the following :

- 29) What is placenta ? Mention its functions and explain classification of placenta based on histology.
  - 30) Write note on :
    - a) Ecological pyramids
    - b) Culturing of carps.
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