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5204-B

M.Sc. (Final) EXAMINATION, 2016

ZOOLOGY

Paper IV-B

(Limnology and Ichthyology)

Time allowed : Three Hours

Maximum Marks : 100

Part A (खण्ड 'अ') [Marks : 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं । प्रत्येक प्रश्न का उत्तर पचास शब्दों से अधिक न हो । सभी प्रश्नों के अंक समान हैं ।

Part B (खण्ड 'ब') [Marks : 50]

Answer five questions in all (250 words each)

selecting one question from each Unit.

All questions carry equal marks.

प्रत्येक इकाई से एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए । प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो । सभी प्रश्नों के अंक समान हैं ।

P.T.O.

Part C (खण्ड 'स')

[Marks : 30]

Answer any two questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए । प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो । सभी प्रश्नों के अंक समान हैं ।

Part A

1. Answer the following :

Unit I

- (i) Give general definition of lake.
- (ii) What are oxbow lakes ?

Unit II

- (iii) Explain clinograde oxygen curve.
- (iv) What are Planktonic blooms ?

Unit III

- (v) What is organoleptic science ?
- (vi) Give zoological names of Lung fisher along with their respective regions.

Unit IV

- (vii) What are osmoregulatory challenges faced by a freshwater and a marine fish ?
- (viii) Give names of fishes showing courtship behaviour.

Unit V

- (ix) Give characteristics of Leptocephali.
- (x) What are Lantern fisher ?

Part B

Unit I

2. Describe Thermal stratification and circulation in Lakes.
3. Give an account of origin of Lakes.

Unit II

4. What are indices of Productivity ? How to achieve oligotrophication in a Lake ?
5. Give an account of distribution and limnological significance of dissolved gases in a Lake.

Unit III

6. Describe different methods of fish preservation.
7. Write an account of prevention and cure of different fish diseases.

Unit IV

8. Describe excretory system in fishes.
9. Give an account of shoaling behaviour in fishes.

Unit V

10. Describe electric organs in fishes.
11. Give an account of Anadromous Migration in Fishes.

Part C

Unit I

12. Classify the Lakes based on different criteria.

Unit II

13. What are Saproplankton ? Describe composition, distribution and limnological significance of Plankton.

Unit III

14. Describe evolution and phylogeny of Fishes.

Unit IV

15. Give an account of reproductive system and its Endocrine regulation in fishes.

Unit V

16. Describe Sardine and Mackerel fisheries of India.