2018

M.Sc. 2nd Semester Examination

ZOOLOGY

PAPER—ZOO-201

Subject Code—35

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group–A

(Biosystematics)

1. Answer any *two* questions of the following : 2×2

(a) Define Biosystematics.

(b) Macrotaxonomy or Geographic species.

(c) Define trinomial nomenclature with suitable examples.

(d) Define polytypic species.

2. Answer any *two* questions of the following : 2×4

(a) Define neotype. State its importance in taxonomy.

(b) Discuss the role of Ecology in modern systematics.

(c) Define geographical species concept and state its relation with the typological and nominalistic species concepts.

(d) Explain α, β and γ taxonomy.

3. Answer *one* question of the following : 1×8

(a) Explain the role of systematics in wild life and public health management.

(b) Write a note on evolutionary species concept.

Group–B

(Ecology)

4. Answer any *two* questions of the following : 2×2

(a) What is "Edge Effect" ? Give example.

(b) Mention the significance of 'Life Table'.

(c) Enlist different ecological attributes determing population dynamics.

(d) Differentiate Mutualism from Commensation.

5. Answer any *two* questions of the following : 2×4

(a) With suitable highlight the differences between Ecological guids and Ecological equivalent.

(b) "No two species with semilar requirements can co-exist" — justify the statement with experimental evidence.

(c) Highlight the relationship among Ecological Guilds, Biotic Community and Taxon.

(d) Explain evolutionary stable strategy highlighting its different approaches.

6. Answer *one* question of the following : 1×8

(a) Draw the relation between Ecology and Ecosystem. Why ecosystem functioning is regarded as cybernatic system ? Add a note on resilience and resistance stability in the ecosystem. 2+3+3

(b) Mention different types of Ecological Niche. How do the r and k selection strealegin operate in animal world ? Add a note on the functional contribution of Key stone species. 2+3+3

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