

2015

M.Sc. Part-I Examination

ZOOLOGY

PAPER—I (Group—B)

Full Marks : 50

Time : 2 Hours

The figures in the 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—B

Answer any *four* questions taking *two* from each unit.

Unit—I

(Applied Zoology)

1. Mention the general characters of Insects. Classify the following insects upto order :

Cockroach, Honeybee, Housefly, Cricket, tiger beetle, silkmoth.

4+8 $\frac{1}{2}$

(Turn Over)

2. State the importance of biofertilizer. In vermiculture which type of earthworms are used? Mention in brief the process of vermiculture.

4+2+6 $\frac{1}{2}$

3. State the difference between capture and culture fisheries. Discuss the present status and prospect of marine fisheries of shell fishes.

4+8 $\frac{1}{2}$

4. Write short notes (any three) :

4 $\frac{1}{2}$ +4+4

- Ecdysis ;
- Peritrophic membrane ;
- IPM ;
- Bee-hive ;
- Eusociality in termites.

Unit—II

(Biosystematics)

5. (i) Define binomial and trinomial nomenclature ;
 (ii) Define Law of priority ;
 (iii) Discuss biochemical aspects of taxonomic study.

3+3+6 $\frac{1}{2}$

6. (i) Define microtaxonomy & macrotaxonomy.
 (ii) Add a note on different stages of taxonomy.
 (iii) Discuss isolating process in allopatric speciation.

4+3+5 $\frac{1}{2}$

7. (i) Define Species Concept.
 (ii) Which species concept is more acceptable and why?
 (iii) Give an idea about Sympatric speciation.
 (iv) Add a note on Sibling Species.

2 $\frac{1}{2}$ +3+4+3

8. Write short notes on any *three* of the following :

$4\frac{1}{2}+4+4$

- (a) International Code of Zoological Nomenclature.
- (b) Linnaean hierarchy.
- (c) Type Concept.
- (d) Taxonomic barcode.
- (e) Role of taxonomy in Agriculture.