2017

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. Name two major parts of cashew. Give a brief account of the life history and symptoms of damage caused by these pests. Add a note in the control strategy of major insect pests of Jute. $3+3+3\frac{1}{2}+3$

2. What do you mean by integrated pest management (IPM)? State the main components of IPM. State the significance of this type of pest management? $3\frac{1}{2}+4+5$

3. Classify the insects having agricultural importance upto order with suitable characters and examples. $12\frac{1}{2}$

4. Write short notes (any *three*) of the following : $4\frac{1}{2}+4+4$

   (a) Peritrophic membrane ;

   (b) Vermiwash ;

   (c) Hemimetabola ;

   (d) Capture fishery ;

   (e) Apiary.

Unit—II

(*Biosystematics*)

(Answer any *two* questions)

5. (a) What do you mean by 'type' in taxonomy ? Define 'holotype' and state its significance.

   (b) Discuss α, β and γ taxonomy ;

   (c) Write a note on principle of taxonomy.

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

6. (a) State the importance of taxonomy in

      (i) Biological control of agricultural pests and

      (ii) Management of environmental problems.

   (b) What do you mean by 'Key' in taxonomy? State the significance of 'Key' for taxonomic identification.

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

7. (a) Differentiate between strain and species.

   (b) Discuss in details the molecular approaches used in taxonomic study.

   (c) Add a note on cladogram. $3+6+3\frac{1}{2}$

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

   (a) Type Concept. $4\frac{1}{2}+4+4$

   (b) Genetic Drift.

(c) Numerical approach of taxonomy.

(d) Synonyms and Homonyms with example.

(e) International Commission on Zoological Nomenclature.
