

COMBINED COMPETITIVE EXAMINATION (MAIN)

ZOOLOGY

Paper—I

Time : 3 hours

Full Marks : 200

Note : (1) The figures in the right-hand margin indicate full marks for the questions.

(2) Attempt **five** questions in all.

(3) Question No. 1 is compulsory.

(4) Suitable diagrams may be drawn, wherever required.

1. Answer any ten of the following :

4×10=40

- (a) Write four important characters of *Palaemon*.
- (b) Differentiate between a butterfly and a moth.
- (c) What is grazing food chain?
- (d) What is fish lice?
- (e) State the importance of water fleas.
- (f) How does *Paramecium* feed?
- (g) What are 'wheel animalcules'? How do they locomote?
- (h) Name the important characters of silverfish.
- (i) How does fish respire?
- (j) What are fish-food organisms?
- (k) Write the scientific names of any four Helminth parasites.
- (l) What is acid rain?

2. Answer any *eight* of the following :

5×8=40

- (a) Differentiate between poisonous and non-poisonous snakes.
- (b) Name the larval forms of Crustacea and Mollusca.
- (c) What is chronobiology?
- (d) Explain the importance of chi square test.
- (e) Write about flightless birds.
- (f) Indicate the ecological role of temperature.
- (g) What are conservation areas?
- (h) What are nematocysts? Indicate their role.
- (i) Indicate the importance of *Peripatus*.
- (j) What are pollutants?

3. Answer any *five* of the following :

8×5=40

- (a) Highlight the status of prawn culture in India indicating the important cultivable species.
- (b) Explain the terms ecology and ecosystem. Comment on the importance of ecology.
- (c) Discuss inherent and learnt behaviour giving suitable examples.
- (d) Write about correlation and regression analysis.
- (e) Explain the adaptive radiations in reptiles.
- (f) What is biosphere reserve? Write about one biosphere reserve of Northeast India.
- (g) Describe the vision in *Palaemon* and cockroach.

4. Answer any *four* of the following :

10×4=40

- (a) What is ecological succession? Explain ecological succession in a pond ecosystem.
- (b) Discuss host-parasite relationship.
- (c) Explain the aerial adaptations of birds.

