I.F.S. EXAM-2016

ZOOLEGY

PAPER—I

Time Allowed : Three Hours

Maximum Marks : 200

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions

There are EIGHT questions in all, out of which FIVE are to be attempted.

Question Nos. 1 and 5 are compulsory. Out of the remaining SIX questions, THREE are to be attempted selecting at least ONE question from each of the two Sections A and B.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

All questions carry equal marks. The number of marks carried by a question/part is indicated against it.

Answers must be written in ENGLISH only.

Neat sketches may be drawn, wherever required.
SECTION—A

1. Write notes on the following: 8×5=40
   (a) Minor Phyla
   (b) Scales in bony fishes
   (c) Primates
   (d) Spicules in Porifera
   (e) Shell diversity in Mollusca

2. (a) What are coral reefs? Write about different types of coral reefs and various theories of coral reef formation. 15
   (b) Give an account of larval forms in Crustacea giving suitable examples and diagrams. Add a note on the significance of larvae. 15
   (c) Discuss parasitic adaptations of Platyhelminthes. 10

3. (a) Discuss that Sphenodon is the most primitive and crocodilians are the most advanced of all living reptiles. 15
   (b) Describe parental care in Amphibia giving suitable examples. 15
   (c) Explain primitive, degenerate and advanced characters of Branchiostoma. 10

4. (a) Give an account of gills and accessory respiratory organs in vertebrates with suitable drawings. 15
   (b) Describe flight adaptations in birds. 15
   (c) Give an account of nutrition in Protozoa with suitable examples. 10

SECTION—B

5. Write notes on the following: 8×5=40
   (a) Biosphere
   (b) Carp culture
   (c) Navigation
   (d) Null hypothesis
   (e) Scintillation counter
6. (a) Explain the causes and consequences of water pollution. Suggest measures for abatement of water pollution.
   
   (b) Differentiate between infectious and communicable diseases. Write briefly about major communicable diseases.
   
   (c) Write about SEM indicating its principle and applications in zoology.

7. (a) Explain one-way and two-way analysis of variance and comment on its application.

   (b) Discuss the role of learning, instinct and habituation in animal behaviour.

   (c) Give an account of prawn culture indicating important cultivable species.

8. (a) Define population. Outline salient population characteristics and add a note on population stabilization.

   (b) Differentiate between spectrophotometry and flame photometry. Elaborate the principles and applications of flame photometry.

   (c) Explain the role of pheromones in alarm spreading.

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