

1(CCE-M)6  
ZOOLOGY-I  
[24]

Time Allowed -3 Hours

Maximum Marks-300

**INSTRUCTIONS**

- i) *Answers must be written in English.*
- ii) *The number of marks carried by each question is indicated at the end of the question.*
- iii) *The answer to each question or part thereof should begin on a fresh page.*
- iv) *Your answer should be precise and coherent.*
- v) *The part/parts of the same question must be answered together and should not be interposed between answers to other questions.*
- vi) *Candidates should attempt any FIVE questions. Q.No.1 and 5 are compulsory. Attempt any THREE questions from Section-A and B. But one question must be selected from each section.*
- vii) *If you encounter any typographical error, please read it as it appears in the text-book.*
- viii) *Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.*
- ix) *No continuation sheets shall be provided to any candidate under any circumstances.*
- x) *Candidates shall put a cross (X) on blank pages of answer Script.*
- xi) *No blank page be left in between answer to various questions.*
- xii) *No programmable Calculator is allowed.*
- xiii) *No stencil (with different markings) is allowed.*
- xiv) *In no circumstances help of scribe will be allowed.*

**SECTION-A**

1. Write notes on any **Three** of the following: (3×20=60)
  - a) Types and mechanism of Locomotion in Protozoa.
  - b) Coral and coral ruff formation.
  - c) Peculiarities and Affinities of Urodela.
  - d) Dentition in mammals and its significance.

2. a) Describe the structure and life history of Fasciola, write about its pathogenicity.  
 b) Discuss aerial adaptation in birds and write why through evolution flightless birds have lost the ability to fly. (2×30=60)
3. a) Describe the method and prospectus of oyster culture in India and process of pearl formation in mollusca. (30)  
 b) Explain organization of social life in insects giving two examples. (20)  
 c) Define coelome and metamerism. Explain their advantages in structural organization of animals. (10)
4. a) Explain neoteny and retrogressive metamorphoses with illustrations.  
 b) Enumerate the poisonous and non-poisonous snakes of India. Write a note on the poison apparatus and toxic effect of poisons.  
 c) What is migration in fishes? Describe the types, causes and advantages of migration in fishes. (3×20=60)

#### SECTION-B

5. Write notes on any **Three** of the following: (3×20=60)  
 a) Ecological succession and altered environment.  
 b) Seasonal rhythms and biological clock.  
 c) Beneficial insects and its economic value.  
 d) Air pollution and its diseases.
6. a) Describe the concept, components and fundamental operation in an ecosystem.  
 b) Explain biogeochemical cycles with sedimentary cycle as an example.  
 c) Write about the adaptations of animals to terrestrial habitats. (3×20=60)
7. a) Elaborate the problems, strategies and management of wildlife conservation.  
 b) Describe various types of animal behavior and explain how neuro endocrine mechanism regulate behavior. (2×30=60)
8. a) Write about the host parasitic relationship in helminths of man. (20)  
 b) What is pisciculture? What are the different types of pisciculture and how is breeding induced in fishes? (30)  
 c) Elaborate the role of pheromones in insect pest control. (10)