

0131**A**

Total No. of Questions—21

Total No. of Printed Pages—2

Regd. No.

1960134214

Part III

ZOOLOGY, Paper - I

(English Version)

Time : 3 Hours]**[Max. Marks : 60****Note :—** Read the following instructions carefully :

- (i) Answer all the questions of Section A. Answer ANY SIX questions out of eight in Section B and Answer ANY TWO questions out of three in Section C.
- (ii) In Section A, questions from Sl. Nos. 1 to 10 are of very short answer type. Each question carries TWO marks. Every answer may be limited to 5 lines. Answer all these questions at one place in the same order.
- (iii) In Section B, questions from Sl. Nos. 11 to 18 are of short answer type. Each question carries FOUR marks. Every answer may be limited to 20 lines.
- (iv) In Section C, questions from Sl. Nos. 19 to 21 are of long answer type. Each question carries EIGHT marks. Every answer may be limited to 60 lines.
- (v) Draw labelled diagrams, wherever necessary for questions in Sections B and C.

SECTION A

10×2=20

Note :— Answer ALL questions in 5 lines each.

1. Write the full form of IUCN. In which book threatened species are enlisted ?
2. What are dynein arms ? What is their significance ?

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3. What are the respiratory structures of *Limulus* and *Palamnaeus* respectively ?
4. Distinguish between Osteoblasts and Osteoclasts.
5. How do you justify the statement "heart in fishes is a branchial heart" ?
6. What is a Kinetin ?
7. What are Retroperitoneal organs ?
8. Distinguish the terms Phototaxis and Photokinesis.
9. "The eggs of *Ascaris* are called Mammillated eggs." Justify.
10. What are Microglia and what is their origin and add a note on their function ?

SECTION B

6×4=24

Note :—Answer **ANY SIX** questions in **20** lines each.

11. Explain "Rivet Popper hypothesis". ✓
12. Describe the structure of cardiac muscle. ✓
13. What are the salient features exhibited by Polychaetes ? ✓
14. Describe the structure of the heart of frog. ✓
15. Describe the process of transverse binary fission in *Paramecium*. ✓
16. What is the need for parasites to develop special adaptations ? Mention some special adaptations developed by the parasites.
17. Draw a neat labelled diagram of the mouthparts of cockroach.
18. Define ecological pyramids and describe with examples pyramids of numbers and biomass. ✓

SECTION C

2×8=16

Note :—Answer **ANY TWO** questions in **60** lines each.

19. Explain the structure and life-cycle of *Entamoeba histolytica* with the help of neat and labelled diagrams.
20. Describe the digestive system of cockroach with the help of a neat labelled diagram.
21. Describe different types of food chains that exist in an ecosystem.