

CSM-66/24
PART—II/PAPER—VI
ZOOLOGY
PAPER—I

Time : 3 Hours

Full Marks : 250

The question paper contains 18 (Eighteen) questions in GROUP—A, (12) and GROUP—B, (06) together.

GROUP—A

Candidates to attempt 10 (ten) questions within word limit of 250.

Each question carries 15 marks.

1. Enumerate the salient features of Class Amphibia. Give a detailed account on origin and evolution of amphibians.
2. Write ten salient features of Phylum Arthropoda. Explain the various respiratory structures of arthropods.
3. Give an account on parasitic protozoans. Discuss the life cycle of *Plasmodium* with labelled diagrams.
4. Give an account on poisonous and non-poisonous snakes of India. Add a note on mechanism of snakebite, venom composition and mode of action.
5. State a comparative account of the brain in fishes, amphibians, reptiles, birds and mammals with diagrammatic representation.
6. What is canal system in Porifera? Explain the different types of canal system in sponges with labelled diagrams. Add a note on its significance.

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7. Explain the different types of mouth parts in insects with diagrammatic representations. State the correlation between various mouth parts and food adaptations of insects.

8. What are corals and coral reefs? Explain the different types of coral reefs.

9. Explain the different larval forms of Echinodermata with neatly labelled diagrams. Explain their phylogenetic significance.

10. Enumerate the salient features of Pisces. Explain the different accessory respiratory structures in fish with illustration.

11. Enumerate the salient features of Hemichordata, Cephalochordata and Urochordata with examples. Add a note on the affinities of each Protochordate group.

12. Discuss the life history of *Taenia solium*. Add a note on its parasitic adaptations.

GROUP—B

Candidates to attempt **05 (five)** questions within word limit of **300**.

Each question carries **20** marks.

13. What is learning? Explain the different types and mechanisms of learning.

14. Explain the principle of electrophoresis. Give a brief account on various types of electrophoresis.

15. Explain the principles, instrumentation and applications of the light microscope and electron microscope.

16. Explain in detail the social behaviour in insects and primates.

17. Give a detailed account on biodiversity, types and conservation. Add a note on wildlife in Odisha and endangered species.

18. Explain the stepwise mechanism of pearl culture. Enumerate the economic importance of pearl oysters.

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