**CSM-66/24**

**PART—II/PAPER—VI**

**ZOOLOGY**

**PAPER—I**

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**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.

**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.

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**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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## SPACE FOR ROUGH WORK

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