

CSM : 15

ZOOLOGY

PAPER - I

Time Allowed : 3 hours

Full Marks : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART A

1. Define taxonomic hierarchy with an example. Give an account on the five kingdom classification. (8+12=20)
2. Describe the excretory system of earthworm. Add a note on the types of insect metamorphosis. (12+8=20)
3. Give the salient features of protochordates. Explain the process of post-embryonic development in *Amphioxus*. (8+12=20)
4. Illustrate the structure and composition of bones and cartilages. Write a note on dentition in mammals. (10+10=20)

PART B

5. What are biogeochemical cycles? Explain the nitrogen cycle. What is the importance of Shannon-Wiener index? (2+10+8=20)
6. Discuss the stages of human evolution as supported by hominid fossils. (20)
7. Describe the process of induced breeding. What are the major biological and chemical pesticides? (10+10=20)
8. Explain the meaning and significance of students' *t*-test. Give a note on important genomic databases and their applications. (8+12=20)

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