

(2 Hours)

[Total Marks : 60]

- N.B. :** (1) All questions are **compulsory**.  
 (2) All questions carry **equal** marks.  
 (3) Draw **neat and labelled diagrams** wherever **necessary**.

1. Attempt any **two** questions from the following :—
  - (a) Enumerate salient features of Sipunculoidea and classify it giving reasons. 6
  - (b) Explain the phylogeny of Arthropoda. 6
  - (c) Give a detailed account of Annelida. 6
  - (d) Briefly explain the phylogeny of Acanthocephala. 6
  
2. Attempt any **two** questions from the following :—
  - (a) Describe the affinities of Cephalochordates. 6
  - (b) Briefly explain affinities of Cyclostomes with respect to resemblance with Cephalochordates. 6
  - (c) Give salient features of Ostracoderms. 6
  - (d) Enumerate the changes leading to evolution of first vertebrate. 6
  
3. Attempt any **two** questions from the following :—
  - (a) Explain plantigrade mode of walking gait. 6
  - (b) Give an account of egg laying mammals. 6
  - (c) Briefly explain Birds as glorified reptiles. 6
  - (d) Describe the cursorial origin of flight in birds. 6
  
4. Attempt any **two** questions from the following :—
  - (a) Give comparative account of pectoral girdle of Varanus and pigeon. 6
  - (b) Compare between the pelvic girdles of dog fish and frog. 6
  - (c) Describe the anatomy of limbs of mammals. 6
  - (d) Briefly explain the mechanism of support for running and jumping. 6
  
5. Write short notes on any **four** of the following :—
  - (a) Parasitic adaptations in Platyhelminthes 3
  - (b) Peripatus 3
  - (c) Herdmania 3
  - (d) Vertebrate Origins 3
  - (e) Digitigrade walking gait of dog 3
  - (f) Dentition in carnivorous mammals 3
  - (g) Mechanism of support for digging 3
  - (h) Pelvic girdle of bony fish. 3

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