

Time: 3 hours

Full Marks: 300

The figures in the right-hand margin indicate marks.

Candidates should attempt Q. No. 1 from Section – A and Q. No. 5 from Section – B which are compulsory and any **three** of the remaining questions selecting at least **one** from each Section.

## SECTION - A

- Write short notes on any three of the following in about 200 words each:
  20×3 = 60
  - (a) Coelom: Its types and origin
  - (b) Mouth parts of insects
  - (c) Neoteny
  - (d) Thyroid hormone
- 2. Describe life history of Taenia.

60

3. Give an account of larval forms of Echinodermataand their phylogenetic significance.60

BY - 70/1

(Turn over.)

4. Discuss the affinities and phylogeny of Hemichordata.

## SECTION - B

- 5. Write short notes on any **three** of the following in about **200** words each :  $20 \times 3 = 60$ 
  - (a) Induced breeding
  - (b) Ecological niche
  - (c) Scanning electron microscopy
  - (d) Social life in honey bee
- Discuss models of energy flow in various types of ecosystems.
- 7. What is intellectual property right? Discuss, in detail, the different forms of its protection. 60
- What is correlation? Discuss its types and give the methods of studying correlation (Scatter diagram and Pearson's coefficient of correlation).

60

