This question paper contains 3 printed pages]

HPAS (Main)—2017

ZOOLGY

Paper I

Time : 3 Hours

Maximum Marks : 100

Note :— Answer any five questions. All questions carry equal marks. Q. No. 1 is compulsory.

कोई पाँच प्रश्न हल कीजिए। सभी प्रश्नों के अंक समान हैं। प्रश्न संख्या 1 अनिवार्य है।


2. Discuss:

   (a) Canal system in *Porifera*

   (b) Coral reefs
3. (a) Write an account of metamorphosis in insects. Add a note on its endocrine control.

(b) Describe social life in honey bees.

4. Explain:

(a) Respiration in *Pila*

(b) Water vascular system in *Asterias*.

**Explanation:**

(a) *Pala* — the respiratory system

(b) *Asterias* — the watervascular system
5. Describe the general features of Urochordata/Tunicates and life history of Herdmania.

6. Describe in detail:

(a) Various modes of parental care in Amphibia.
(b) Migration in birds.

7. Describe the comparative anatomy of heart and aortic arches in vertebrates.

8. Describe the structure and types of DNA. Explain the mechanism of DNA replication.