H.P.A.S. (Main)—2011

ZOOGLOLOGY—I

Time : 3 Hours  Maximum Marks : 150

Note :— Attempt total five questions. Question No. 1 is compulsory. Answer any four from the remaining ones. All questions carry equal marks.

1. Attempt any one :  
   (a) Which structure in the body of scolidon is presumed to be forerunner of vertebrate teeth? Name it and show its development with figures only.

   (b) Which system has evolved by progressive thickening and folding of body wall in sponges? Name it and show examples with figures only.

2. Attempt any two :  
   (a) Compare only development of Obelia with Aurelia.

   (b) Give neat figure of digestive organs in cockroach.

P.T.O.
(2)

(c) Write systematic positions of:

_Balanoglossus, Branchiostoma_, Frog, Pigeon and Rabbit.

3. Attempt any two: $2 \times 15 = 30$

(a) Parasitic adaptations in _Ascaris_

(b) External features of _Neanthes_

(c) Significance of echinoderm larvae.

4. Show nervous system of _Palaemon_ with figure only: 30

5. Compare agnatha with gnathostomata and pisces with tetrapoda: 30

6. Discuss life history of _trypanosoma_: 30

7. Attempt any two: $2 \times 15 = 30$

(a) Umbo

(b) Pectin

(c) Dentition in Rabbit.
8. Attempt any two:

(a) Major differences between *Vorticella* and *Paramecium*.

(b) Coelom in *Branchiostoma*

(c) Compare digestive glands in vertebrate groups.