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H.P.A.S. (Main)—2011

ZOOLOGY—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 : 30

(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 : 2×15=30

(a) Compare only development of *Obelia* with *Aurelia*.

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

P.T.O.

(c) Write systematic positions of :

*Balanoglossus*, *Branchiostoma*, Frog, Pigeon and Rabbit.

3. Attempt any two : 2×15=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 : 2×15=30

(a) Umbo

(b) Pecten

(c) Dentition in Rabbit.

8. Attempt any two : 2×15=30

- (a) Major differences between *Vorticella* and *Paramecium*.
- (b) Coelom in *Branchiostoma*
- (c) Compare digestive glands in vertebrate groups.