

This question paper contains 3 printed pages]

HPAS (Main)—2012

ZOOLOGY

Paper I

Time : 3 Hours

Maximum Marks : 150

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

1. Attempt any *one* :

- (a) Compare all aspects of Urochordates and Cephalochordates. 30

Or

- (b) What happens if clam (mussel) is molested ? Why, explain.

2. Comment upon any *two* : 2×15=30

- (a) Choanoderm
(b) Great barrier reef
(c) Polyp and Medusa in *Obelia*.

P.T.O.

3. Write brief notes on any two : 2×15=30
- (a) Contrast between Protozoa and Metazoa.
 - (b) Madriporite
 - (c) Meaning and example of Retrogressive metamorphosis.
4. Answer any two : 2×15=30
- (a) Role of flame cells in *Ascaris*.
 - (b) E.M. view of anterior end of *Euglena*.
 - (c) Adaptations of *Leech*.
5. Write habits and habitat of *Scorpion*. 30
6. Give good figures for any two : 2×15=30
- (a) T.S. of *Planaria* through pharynx.
 - (b) Pallial complex in *Pila*.
 - (c) Cephalic appendages of *Palaemon*.

7. Compare heart of frog with that of heart of Rabbit. 30
8. Write short notes on any *two* : 2×15=30
- (a) Larvae of class Holothuroidea
 - (b) Kinds of Megascleres
 - (c) Larva of Nereis.