

2019

(October)

ZOOLOGY

(Honours)

FIFTH PAPER

(Functional Anatomy, Zoogeography and Adaptations)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer Question No. 1 which is compulsory and any four from the rest

1. Write in brief on any three of the following :

$4 \times 3 = 12$

- (a) Pseudopodia in Protozoa**
- (b) Nephridia in Annelids**
- (c) Coral and coral reefs**
- (d) Vision in insects**
- (e) Neotropical region**

(2)

2. Give an account of the different types of canal system found in sponges with suitable diagrams.

$$8+3=11$$

3. What is retrogressive metamorphosis? Discuss with reference to Ascidia with suitable diagram.

$$2+7+2=11$$

4. Describe in detail on any two of the following :

$$5\frac{1}{2} \times 2 = 11$$

- (a) Torsion in gastropods
- (b) Types of mouth parts in insects
- (c) Parasitic adaptations

5. (a) Give a comparative account of Petro-myzon and Myxine.

$$5\frac{1}{2}$$

- (b) Write on the affinities in *Balanoglossus*.

$$5\frac{1}{2}$$

6. Define adaptation. Give an account of the adaptive modifications in terrestrial animals under the cursorial mode of life.

$$2+9=11$$

7. Define accessory respiratory organs in fish. Discuss different types of accessory respiratory organs with suitable diagrams.

$$2+7+2=11$$

(3)

8. Write short notes on any two of the following :

$$5\frac{1}{2} \times 2 = 11$$

- (a) Parental care in amphibia
- (b) Migration in birds
- (c) Colouration and mimicry
