

This question paper contains 4 printed pages]

Your Roll No. ....

1954

B.Sc. (Prog.)/II

E

BIO-201 —BIOLOGY OF ANIMALS : FORM,

STRUCTURE AND FUNCTION

Time : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Answer five questions in all.

Q. No. 1 is compulsory.

1. (a) Define the following terms :

(i) Polymorphism

(ii) Pseudocoelom

(iii) Action Potential

(iv) Neuroglia

(v) Metagenesis.

5

P.T.O.

(b) Classify the following (non-chordates upto class and chordates upto order) :

(i) Starfish

(ii) Portuguese Man of war

(iii) Toad

(iv) Pigeon.

4

(c) Expand the following :

(i) ACTH

(ii) MSH

(iii) LTH

(iv) FSH.

4

(d) Differentiate between the following :

(i) Polyp and Medusa.

(ii) Diabetes mellitus and Diabetes insipidus.

(iii) Vital capacity and Total lung capacity.

(iv) Trichocyst and Nematocyst.

(v) Polyurea and Polydipsia.

10

- (e) Give the exact location of :
- (i) Sebaceous glands
  - (ii) Flame cells
  - (iii) Statocyst
  - (iv) Contractile vacuole. 4
2. (a) Give an account of water vascular system in Echinoderms. 7
- (b) Discuss the formation of image by compound eye in different intensities of light. 5
3. Give an account of flight adaptations in birds. 12
4. Give the structure and function of hypophysis. Explain what will happen if there is an excessive (hyper) or decreased (hypo) secretion of growth hormone by the pituitary gland. 12
5. Describe the mechanism of urine formation in mammalian kidney. 12

6. (a) Describe oxygen dissociation curve and the factors which influence it. 8
- (b) Explain chloride shift. 4
7. Write short notes on any *three* of the following :
- (i) Blood Homeostasis
- (ii) Parasitic adaptations in Platyhelminthes
- (iii) Metamerism in Annelids
- (iv) Conjugation in Paramecium. 4,4,4