This question paper contains 3 printed pages]

Roll No. | | | | | | | | | | | |

S. No. of Question Paper : **75**

Unique Paper Code : **217379** **G**

Name of the Paper : **Paper II : BIO-201 : Biology of Animals : Form, Structure and Function**

Name of the Course : **B.Sc. (Prog.) (Applied Life Sciences with Agrochemicals and Pest Management)/II**

Semester : III

Duration : **3 Hours** Maximum Marks : **75**

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

Answer Section A and Section B on separate answer-books.

Draw well-labelled diagrams wherever required.

Section A.

Attempt *three* questions in all.

Question No. **1** is compulsory

1. (*a*) Give the scientific names of the following animals and classify each upto its class : 6

   (*i*) Organ pipe coral

   (*ii*) King crab

   (*iii*) Flying lizard

   (*iv*) Bat

   (*b*) Explain the following : 4

   (*i*) Metamerism

   (*ii*) Enterocoelomates

P.T.O.

(*c*) Write functions of the following : 4

(*i*) Mother of pearl

(*ii*) Water vascular system

(*iii*) Ostia

(*iv*) Ommatidium.

2. (*a*) Give a brief account of the locomotory organelles found in Protista. 6

(*b*) Explain the adaptations in Helminthes for parasitic mode of life. 6

3. (*a*) Describe the porcess of osmoregulation in fishes. 6

(*b*) Explain the structure of integument in mammals. 6

4. Write short notes on any *two* of the following : 12

(*i*) Polymorphism in Cnidaria

(*ii*) Flight adaptations in birds

(*iii*) Canal system in Sycon.

Section B

Attempt *three* questions in all.

Question No. **1** is compulsory

1. (*a*) Define the following : 3

(*i*) Oogenesis

(*ii*) Synapse

(*iii*) Homeostasis.

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(*b*) Give the exact location and function of the following : 6

(*i*) Macula densa

(*ii*) Leydig cells

(*iii*) Brunner's gland.

(*c*) Differentiate between the following : 4

(*i*) Chyme and Chyle

(*ii*) Neurogenic and Myogenic heart.

2. Give a detailed account of the process of urine formation along with diagrams. 12

3. Define cardiac cycle and discuss the various events occurring during cardiac cycle. 12

4. Write short notes on any *three* of the following : 4+4+4

(*i*) Menstrual cycle

(*ii*) Pituitary gland

(*iii*) Oxygen dissociation curve

(*iv*) Synaptic transmission.