[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 8334A **C** **Roll No.....**

Unique Paper Code : 217379

Name of the Paper : Paper No. 11 : Biology of Animals : Form, Structure and Function

Name of the Course : B.Sc. Agrochemicals and Pest Management

Semester : III

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Answer **Five** questions in all.
3. Question No. **1** is compulsory.

1. (a) Define the following terms :
   (i) Metagenesis
   (ii) Schizocoel
   (iii) Stroke volume
   (iv) Ultrafiltration
   (v) Tendon
   (vi) Spermatogenesis (6)

   (b) Distinguish between the following :
   (i) Proterostomes and Deuterostomes
   (ii) Apposition and Superposition image
   (iii) Diabetes insipidus and Diabetes mellitus
   (iv) Apocrine glands and Holocrine glands
   (v) SV node and AV node
   (vi) Lobopodia and Reticulopodia (12)

P.T.O.

(c) Write the scientific names of the following animals and classify them up to their respective classes (non-chordates) and orders (chordates) :

(i) Hermit crab

(ii) Sea mouse

(iii) Sawfish

(iv) Sea horse (4)

(d) State the location and function of the following structures in an animal's body :

(i) Clitellum

(ii) Madreporite

(iii) Beta cells

(iv) Meissner's plexus

(v) Leydig cells (5)

2. Describe the process of conjugation in *Paramaecium*. Add a note on its significance. (8,4)

3. With the help of suitable diagrams give an account of canal system in poriferans. (12)

4. Describe the various epidermal derivatives in mammals. Add a note on the functions of integument. (8,4)

5. State the various steps involved in the process of muscle contraction, enumerating the role of various muscle proteins involved. (12)

6. Describe the various methods in which carbon dioxide is transported by blood. (12)

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

(i) Osmoregulation in freshwater fishes

(ii) Urea cycle

(iii) Flight adaptations in birds

(iv) Hormonal control of menstrual cycle

(v) Modes of respiration in amphibians (4,4,4)