

This question paper contains 4+1 printed pages]

Your Roll No.

5185-A

B.Sc. Prog. Life Science/III Sem.

B

Paper—LSPT-305

BIODIVERSITY-II 'ANIMALS'

Time : 3 Hours

Maximum Marks : 75

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

There are *two* Sections—Section A and Section B, to be answered on separate answer-books. Draw labelled diagrams wherever necessary.

Question No. 1 is compulsory in each Section and answer any *two* more questions from each Section. -

Section A

1. (a) Define the following :

5

(i) Protostomia

(ii) Pseudometamerism

P.T.O.

(iii) Premunition

(iv) Metagenesis

(v) Torsion.

(b) Differentiate between the following :

6

(i) Schizocoel and Enterocoel

(ii) Schizogony and Sporogony

(iii) Monodelphic and Polydelphic

(iv) Endomixis and Hemixis

(v) Saprozoic and Mixotrophic

(vi) Isogamy and Anisogamy

(c) Match the following :

3

(1) *Octopus* (a) Rasping organ

(2) Tusk Shell (b) Chloragogen cells

(3) Radula (c) *Hydractinia*

(4) Earthworm (d) Amphibious

(5) Polymorphism (e) *Dentalium*

(6) *Pila* (f) Devil Fish

2. (a) Discuss in detail the characteristics of phylum Cnidaria.
- (b) Explain polymorphism in Coelentrates. 6+6
3. What are parasitic adaptations ? Describe the morphological, physiological and biological adaptations of Helminths. 3+9
4. Write short notes on any two : 6+6
- (a) Life cycle of *Plasmodium*
- (b) Social life in insects
- (c) Water-vascular system in star fish.

Section B

1. (a) Define the following : 6
- (i) Retrogressive metamorphosis
- (ii) Poikilothermy
- (iii) Notochord

(iv) Calcichordates

(v) Anadromous

(vi) Osmoconformers.

(b) Differentiate the following : 4

(i) Stenohaline and Euryhaline

(ii) Java man and Peking man

(iii) Lemuroids and Tarsioids

(iv) Amniotes and Anamniotes

(c) Match the following : 3

(1) Neanderthal man (a) Used fire

(2) Foramen of Triosseum (b) Birds

(3) *Homo habilis* (c) Fishes

(4) Cleidoic egg (d) Tool maker

(5) Peking Man (e) Head of Humerous

(6) Chloride cells (f) Cranial capacity 1450 cc

2. (a) Define osmoregulation. Classify fishes on the basis of osmoregulation. 7+5
- (b) Give an account of the adaptive radiation of reptiles.
3. (a) Explain the origin of tetrapods and the structural modifications associated with change of life from water to land. 8+4
- (b) Give the salient features of protochordates.
4. Write short notes on any two : 6+6
- (a) Early evolution of mammals
- (b) Origin of birds
- (c) Primates.