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ZOOLOGY

(Major)

Paper : 1.2

[**Animal Diversity (Non-Chordates)**]

Full Marks : 60

Time : 2½ hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following : 1×7=7

(a) Fill in the blank :

— secrete spongin fibre.

(b) Name the famous reef near Australia.

(c) What is the first-stage larva of Ankylostoma?

(d) What is prototroch?

(e) Give an example of order Platyctenea of phylum Ctenophora.

(f) Where is the hastate plate found in prawn? *cardiac stomach*

(g) Name a crustacean parasite of crab:

2. Answer the following questions : $2 \times 4 = 8$

- (a) Write a brief note on Sipunculus.
- (b) Write the significance of Peripatus in evolution.
- (c) Write very briefly the polymorphism in Siphonophora.
- (d) Draw a neatly labelled diagram of Bipinnaria larva.

3. Answer any *three* questions : $5 \times 3 = 15$

- (a) Give an account on the mechanism of amoeboid movement. 5
- (b) What do you understand by the periodicity of microfilariae? Write the pathogenicity and treatment of disease caused by filarial worm. $2+2+1=5$
- (c) Give an account of the structure of trochophore larva. Discuss its evolutionary significances. $3+2=5$
- (d) Discuss the adaptive features in the digestive system of Pila. 5
- (e) Describe in detail the thoracic appendages of Palaemon with neat diagram. $4+1=5$

4. (a) Describe the various modes of nutrition found in Protozoa with suitable diagram. 10

Or

- (b) Define canal system. Give an account of canal system in Porifera. 2+8=10

- (c) Classify phylum Coelenterata up to orders giving diagnostic characters with examples. 10

Or

- (d) Describe the life history of Fasciola with neatly drawn diagram. 8+2=10

- (e) How does torsion occur? What are the effects of torsion in Gastropods? Write its significances. 4+4+2=10

Or

- (f) Write an account of ambulacral system in various echinoderms. 10

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