

2019

B.Sc.

1st Semester Examination
ZOOLOGY (Honours)
Paper - C 1-T

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any five questions of the following :

5×2=10

- (a) 'Nuclear dimorphism is shown by *Paramoecium* sp' — Explain. 2
- (b) Differentiate between metamerism and pseudometamerism. 2
- (c) State the basic differences between conjugation and sexual reproduction. 2
- (d) Diagrammatically show the course of water current in syconoid and leuconoid types of canal system of sponges. 2

[Turn Over]

- (e) Define synonymy and homonymy. 2
- (f) Name the larval forms of platyhelminthes. 2
- (g) What are phasmids ? Name one animal having phasmids. 2
- (h) What is polyembryony ? Where do you witness such phenomenon ? 2

2. Answer any *four* questions : $4 \times 5 = 20$

- (a) What do you understand by principle of priority in Biological Nomenclature system ? Name the six kingdoms and three domains as proposed by Carl Woese. 2+3
- (b) (i) Differentiate between radial symmetry and bilateral symmetry.
- (ii) Throw some light on the evolutionary significance of bilateral symmetry. 2+3
- (c) (i) Enumerate the sexual dimorphism witnessed in male and female *Ascaris* sp.
- (ii) Write a note on primary migration of larva of *Ascaris* sp within the infected host.
- (iii) What is Loeffler's syndrome ? 2+2+1

- (d) (i) Name any two flagellated protozoa.
(ii) Describe the ultrastructure of a flagellum. 2+3
- (e) (i) Discuss polymorphism in *Physalium* sp.
(ii) Comment on the significance of polymorphism. 3+2
- (f) (i) Classify spicules found in sponges on the basis of its size and also of its chemical composition.
(ii) What is spongin ? 4+1

3. Answer any *one* question : 1×10=10

- (a) (i) Give a brief description of the asexual phase of life-cycle of *Plasmodium vivax*. 6
(ii) Name the phylum to which *P. vivax* belongs to and also state two important features of that phylum. 2½
(iii) Differentiate primary host from secondary host. 1½

[Turn Over]

- (b) (i) Diagrammatically compare Fringing Reef
Barrier Reef & Atoll. Where would one get
to see coral reefs in India ? 3+1
- (ii) List the important ecological functions of
coral reefs. 3
- (iii) Write a note on the global conservation
strategies of coral reefs. 3
-