

2020

ZOOLOGY — HONOURS

Paper : CC-1

(Nonchordate I)

Full Marks : 50

*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 fifteen** questions of the following : 2×15
- (a) What is Linnaean hierarchy?
  - (b) What are manubrium and tentaculocyst?
  - (c) What is siphonoglyph?
  - (d) Distinguish between systematics and taxonomy.
  - (e) Give one example of each of biradial and pentamerous radial symmetry.
  - (f) What are the significances of conjugation in *Paramoecium*?
  - (g) Distinguish between cytostome and cytophyge.
  - (h) Classify subkingdom Protozoa up to phylum (Levine *et al.*, 1980) schematically.
  - (i) What is the role of flame cell?
  - (j) Mention the salient features of phylum Ctenophora.
  - (k) What is relapse in malarial infection?
  - (l) What are the infective stages of *Plasmodium vivax* and *Ascaris lumbricoides* to human host?
  - (m) Distinguish between definitive and intermediate host.
  - (n) Distinguish between metamerism and pseudometamerism.
  - (o) Name any two cell types found in sponge body.
  - (p) Give an example of animal having only polypoid and only medusoid stage. Mention their classes.
  - (q) Define polymorphism with example.
  - (r) What is a 'type'?
  - (s) What is nematocyst? Where do you find this?
  - (t) Mention the characteristics of class Cestoda.
  - (u) What is rhabdite? State its function.

**Please Turn Over**

- (v) Distinguish between Phasmodia and Aphasmodia.
- (w) Distinguish between male and female *Ascaris lumbricoides*.
- (x) Mention two factors behind nocturnal periodicity of *W. bancrofti*.
- (y) What is Loeffler's syndrome?

2. Answer **any four** questions of the following :

- (a) (i) When do we designate a neotype?  
(ii) What are the requisites of Binomial Nomenclature?  
(iii) What is a tautonym? 2+2+1
  - (b) (i) Briefly mention the salient features of Carl Woese Classification.  
(ii) What is law of priority? 3+2
  - (c) Write short notes on (**any two**) : 2½×2
    - (i) Migration of larval forms of *Ascaris lumbricoides*
    - (ii) Formation of metachronal wave in *Paramecium* sp.
    - (iii) Solution– Contraction theory in Amoeboid movement
    - (iv) Role of symbiotic algae in coral reef formation.
  - (d) (i) Give an account of leuconoid type of canal system.  
(ii) What are the physiological importance of canal system? 3+2
  - (e) Classify phylum Porifera (up to class) with suitable characters and example. 5
  - (f) (i) Explain the parasitic adaptations in *Taenia solium*.  
(ii) Mention the pathogenic symptoms of liver rot disease. 3+2
  - (g) (i) What is tagmatisation?  
(ii) Discuss the polypoid forms in Siphonophora. 2+3
  - (h) (i) What is atoll?  
(ii) What are the different types of spicules found in sponges?  
(iii) Give an example of solitary and colonial coral. 1+2+2
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