

**2022**

Time : 3 hours

Full Marks : 60

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

**Group – A**

**(Compulsory)**

1. [A] Choose the correct answer of the following :

- (i) Binomial nomenclature was first issued in :
- (a) Systema Naturae
  - ✓(b) Species plantarum

(c) Genera Animalium

(d) Genera plantarum

(ii) Cryptic species :

(a) Can not breed together

(b) Can breed together

(c) May breed in one way

(d) May breed in both way

(iii) Species are :

(a) Interbreeding IPS

(b) Interbreeding groups

(c) Self breeding IPS

(d) Hybridizing groups

(iv) Sarcodina move by :

(a) Pseudopodia

(b) Cilia

(c) Flagella

(d) None of these ✓

(v) Contractile vacuols in Marine Protozoans

are :

- (a) Absent
- (b) Two in number
- (c) One in number
- (d) Many

(vi) Opening by which water passes out of the radial canal is :

- (a) Prosopyles
- (b) Osculum
- (c) Apopyles
- (d) Ostia

(vii) Medusae are produced by blastostyle :

- (a) Asexually
- (b) Sexually

(c) Parthenogenetically

(d) Amitotically

(viii) Atoll one mostly found in :

- (a) Arabian sea
- (b) Indian sea
- (c) Bay of Bengal
- (d) Pacific Ocean

(ix) Structure which provide protection against digestive enzyme to aschelminthis parasites is :

- (a) Lack of gut
- (b) Lack of cuticle
- (c) Presence of cuticle
- (d) Both (a) and (b)

(x) Coelomoducts primarily function as :

- (a) Excretory duct

- (b) Gonoduct
- (c) Digestive duct
- (d) Respiratory duct

[B] Fill in the blanks with suitable word :  $1 \times 5 = 5$

- (i) Metanephridia open by Nephrostome into \_\_\_\_\_.
- (ii) First larval form in crustacean is \_\_\_\_\_.
- (iii) Stone canal is found in \_\_\_\_\_.
- (iv) Collar cells are called as \_\_\_\_\_.
- (v) Veliger larval belong to \_\_\_\_\_.

2. Write short notes on any **three** of the following.

$5 \times 2 = 10$

- (a) Conjugation in Paramecium
- (b) Parasitic Adaptation in Ascaris
- (c) Metanephridia in annelids

- (d) Biological species concept
- (e) ICZN

### Group - B

Answer any **two** questions, selecting **one** from each Unit :  $15 \times 2 = 30$

#### Unit - I

3. Give an account of Locomotory organs and locomotion in different classes of Protozoa.
4. What is metogenesis. Illustrate by describing life cycle of obelia.
5. Compare the leucan canal system and sycon canal system with suitable diagram.

#### Unit - II

6. Describe the events of Torsion and Detorsion in Mollusca with its significance.

7. Give an account of different types of larvae crustaceans and mention its evolutionary significance.
8. Describe the water vascular system in *Asterius* and its purpose.

