

**Bago University**  
**Department of Zoology**  
**First Semester Examination, March 2019**

**Second Year BSc**  
**(Zoology Specialization)**  
**Answer ALL questions**

**Zool. 2101**  
**Protista and Lower Invertebrates I**  
**Time Allowed: (3) Hours**

**I. State TRUE or FALSE to the following statements.**

**(10 marks)**

1. The majorities of Ciliates are parasitic.
2. *Paramecium caudatum* measures 0.15 to 0.3mm in length.
3. In *Paramecium*, the exterior surface is covered by pellicle.
4. In *leucosolenia* the ostia are intracellular.
5. In all sponges, their body wall composed of two layers.
6. In *Scypha*, sexual reproduction takes place by budding and regeneration.
7. The amphiblastula larva occurs in the development of most of the calcarea.
8. The rhagon type of sponge is conical in shape.
9. Hydras have five kinds of nematocysts.
10. Most of the corals are colonial, but a few are solitary.

**II. Complete the following statements with appropriate words.**

**(10 marks)**

1. Litostomatea are mainly either predatory or ----- in animals.
2. The Oligohymenophorea are a large class of ciliate -----.
3. *Paramecium* belongs to the phylum -----.
4. The porocytes are tubular contractile cells formed from modified -----.
5. The choanocytes are rounded or ----- cells.
6. *Scypha* is ----- (hermaphrodite).
7. The openings of the radial canals into the spongocoel are termed internal -----.
8. The flagellated chambers are wide and thimbles shaped in the ----- type.
9. The Anthozoa are marine ----- of flower like form.
10. Ctenophore are monoecious, both eggs and sperm being produced by the endodermal lining in ----- canals.

**III. Answer ALL questions**

**(10 marks)**

1. Define the term conjugation.
2. Describe the general characters of order Heterocoela.
3. Draw the external features of *Scypha*.
4. State how to excrete their wastes in sponges.
5. Classify the types of coral reef.

**IV. Answer ALL questions.**

**(20 marks)**

1. Enumerate the characteristics of phylum *Porifera*.
2. Discuss briefly on food and digestion of *Scypha*.
3. Give an account on budding of *Hydra*.
4. Draw and label the types of corals.

**V. Answer ANY THREE questions**

**(30 marks)**

1. State briefly on the contractile vacuoles in *Paramecium*.
2. Draw the diagram of nuclear changes during autogamy in *Paramecium aurelia*.
3. Name the types of canal systems and discuss precisely on asconaid type.
4. Give an account on sexual reproduction of *Hydra* with diagram.
5. Describe the structure of jellyfish.
6. State an interesting account on corals as far as you can.

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