

**2021**

**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.*

Answer **any ten** questions.

1. (a) What is homonymy and synonymy?  
(b) State the salient features and demerits of five kingdom classification of Whittaker, 1969. 2+3
2. (a) What is taxonomic hierarchy?  
(b) Give two examples of animal with trinomial nomenclature.  
(c) Mention the informations to be provided while designating a holotype. 1+2+2
3. State the systematic position of the following animals (upto class) mentioning at least two diagnostic features of each taxon :  
(a) *Obelia* sp.  
(b) *Aurelia* sp. 2½+2½
4. (a) What is flame cell?  
(b) Mention the pathogenic symptoms of Loeffler's syndrome.  
(c) How does metamerism differ from strobilization? 1+2+2
5. Elaborate the process of conjugation in *Paramecium* sp with suitable diagram. 5
6. (a) What is lymphangitis?  
(b) Give example of animals having only polyp and only medusoid form.  
(c) Mention the significance of radial symmetry. 1+2+2
7. (a) Why is the distribution of coral reef restricted to some parts of the world?  
(b) What are zooids?  
(c) Write the scientific name of Portuguese man-of-war. 2+2+1

**Please Turn Over**

8. Draw and describe the syconoid canal system and show the course of water flow with the help of a flow chart. 5
9. Distinguish between :
- (a) Choanocyte and Pinacocyte.
  - (b) Digenea and Monogenea. 2½+2½
10. (a) Describe briefly the process of flagellary movements of *Euglena* sp.  
(b) State the functions of contractile vacuoles. 4+1
11. Write notes on : 2½+2½
- (a) Erythrocytic schizogony
  - (b) Trophozoite of *Entamoeba histolytica*.
12. Justify **any two** of the following statements with proper reasons : 2½+2½
- (a) *Plasmodium* sp. is an apicomplexan animal.
  - (b) *Microfilaria* is nocturnal in habit.
  - (c) Liver fluke is responsible for liver rot disease.
  - (d) Sea-Pen is an anthozoan animal.
13. (a) Explain the cyclomerism theory of metazoan evolution.  
(b) Distinguish between homonomous and heteronomous metamerism with examples. 2½+2½
14. Write short notes on (**any two**) : 2½+2½
- (a) Parasitic adaptation of *Wuchereria bancrofti*.
  - (b) International code of zoological nomenclature.
  - (c) Locomotor organelles and locomotion in Sarcodina.
15. (a) Mention the salient features of Phylum Ctenophora.  
(b) What do you mean by measly pork and cysticercosis? 2+3
-