# B.Sc. 4ᵗʰ Semester (Honours) Examination, 2022 (CBCS)
## Subject: Zoology
### Paper: SEC - 2
### (Aquarium Fish Keeping)

**Full Marks: 40**                                                    **Time: 2 Hrs.**

*The figures in the right hand margin indicate full marks.*

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

### Group - A

**1.**     *Answer any **five** questions of the following:*                    2×5=10

**a)**     Define invasive species. Give scientific name of one invasive ornamental fish.

**b)**     Give scientific names of two aquatic plants used in aquarium.

**c)**     What do you mean by gonopodium?

**d)**     What are Infusoria?

**e)**     How do you remove chlorine from water?

**f)**     State the reasons for mortality of aquarium fishes during transportation.

**g)**     Give scientific names of two potential indigenous larvivorous fishes.

**h)**     Comment on "sequential hermaphroditism".

### Group - B

**2.**     *Answer any **two** questions of the following:*                    5×2=10

**a)**     Why binding agents are used in preparation of fish feed? Add a brief note on the composition of formulated fish feed for aquarium fishes.          1+4

**b)**     Give a brief account of the livebearer ornamental fishes. Give scientific names for one each of the indigenous freshwater and marine water ornamental fishes.          3+2

**c)**     Construct a budget for setting up an aquarium fish farm.          5

**d)**     Briefly classify the natural live food organisms with examples. Why live food organisms are called 'living capsules of nutrition'?          3+2

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## Group - C

**3.** *Answer any **two** questions of the following:*　　　　　　　10×2=20

**a)** What do you mean by sexual dimorphism? Mention the characteristic features and sexual dimorphism of Angel fish and Anemone fish.　　2+4+4

**b)** State the methods used for transportation of live fish. Why anesthetics are used during fish transport?　　8+2

**c)** Mention characteristics features of larvivorous fishes. Discuss the possible role of aquarium fish as larval predators. Add a brief note on the use of ornamental fishes for biocontrol of mosquito.　　2+4+4

**d)** What is a cottage industry? Give an account of the possible scope of the aquarium fish-keeping sector as a cottage industry in India.　　2+8

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## B.Sc. 4<sup>th</sup>Semester (Honours) Examination, 2022 (CBCS)
## Subject: Zoology
## Paper: SEC 2
## (Medical Diagnostics)

**Full Marks: 40**                                                    **Time: 2Hrs.**

*The figures in the right hand margin indicate full marks.*

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

### Group-A

**1.** *Answer any **five** questions of the following:*                2×5=10

**a)** What is P.C.V.? Mention its normal range.

**b)** Differentiate between Primary and Secondary Hypertension.

**c)** Expand the terms: PET and ELISA.

**d)** Mention the normal value of platelet count.

**e)** What is Mantoux Test?

**f)** Mention the normal range of Blood Glucose and Blood Pressure.

**g)** What is Hepatitis? Mention its types.

**h)** What is Differential Leucocyte Count? Mention its normal range in blood.

### Group-B

**2.** *Answer any **two** questions of the following:*                5×2=10

**a)** What is LFT? What are the parameters of lipid profile of a person?      2+3

**b)** What is Diabetes Mellitus? Distinguish Type-I and Type-II Diabetes.      1+4

**c)** What are the normal components of Urine? What abnormal components can be observed in urine and mention their causes associated with?      2+3

**d)** Describe briefly the basic principle of MRI. Briefly mention the applications of X-ray imaging and CT-scan.      2+1.5+1.5

**Group-C**

3.    *Answer any **two** questions of the following:*                           10×2=20

**a)**    Mention the causative agents of malaria. What are the different types of    2+2+3+3
human malaria? Mention any three clinical symptoms of malaria. Briefly
mention the diagnostic methods for malaria.

**b)**    What is Tuberculosis? What is the causative agent of tuberculosis? Describe    1+1+4+4
some methods used for diagnosis of tuberculosis. What preventive measures
can be taken to control the disease?

**c)**    What is Antibiotic Sensitivity Test? State the importance of performing this    2+3+5
test. Briefly illustrate the techniques involved in this test.

**d)**    What is tumor? Distinguish between benign and malignant tumors. Define    2+4+2+2
metastasis. How malignant tumors can be detected?

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