## B.Sc. 4th Semester (Honours) Examination, 2019 (CBCS)

### Subject : Zoology

### Paper : SEC-T2

### (Aquarium Fish Keeping)

**Time: 2 Hours**  **Full Marks: 40**

*The figures in the margin indicate full marks.*
*Candidates are required to give their answers in their own words*
*as far as practicable.*

### Group-A

1. Answer *any five* questions from the followings: 2×5=10

   (a) Why ornamental fishes are known as "Living Jewels"?

   (b) What is invasive species? Give scientific name of one invasive ornamental fish.

   (c) What is gonopodium?

   (d) Write two antibacterial agents with optimum doses used in fish transportation.

   (e) How do you remove chlorine from water?

   (f) Give scientific names of 'Angel fish' and 'Gold fish'.

   (g) Why live food organisms are called 'Living capsules of nutrition'?

   (h) Comment on 'Ick disease'.

### Group-B

2. Answer *any two* questions from the followings: 5×2=10

   (a) Elucidate briefly the potential scope of the aquarium fish keeping industry as a cottage industry. 5

   (b) Analyse the potential of aquarium fishes as larval predator. Add a brief note on the use of ornamental fish in control of mosquito population. 3+2=5

   (c) Classify the natural live feed organisms with examples. Outline the process of *Artemia* culture. 2½+2½=5

   (d) Mention the common characters of Guppy. How do you differentiate male and female Guppy? 3+2=5

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## Group-C

**3.** Answer *any two* questions from the followings:                    10×2=20

(a) What do you mean by open system and closed system of fish transport? Mention the principles and factors which are associated with fish transport. How do you transport brood fish?

2+5+3=10

(b) What is sexual dimorphism? State the common characters and sexual dimorphism of Swordtail and Angel fish.

2+4+4=10

(c) Write notes on:                                                         2½×4=10

    (i) Sequential hermaphroditism

    (ii) Live bearer ornamental fish

    (iii) Stocking density of aquarium

    (iv) Fish tranquilizers

(d) Write down the goodies and essential accessories that are required for an aquarium. Mention the vital parameters to test as routine aquarium maintenance. What are the basic requirements to start ornamental fish farming business?

4+2+4=10

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# B.Sc. 4th Semester (Honours) Examination, 2019 (CBCS)

## Subject : Zoology

## Paper : SEC-T3

## (Medical Diagnostics)

**Time: 2 Hours**                                                        **Full Marks: 40**

*The figures in the margin indicate full marks.*

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

## Group-A

1. Answer *any five* questions from the followings:                    2×5=10

   (a) Name any two soluble plasma proteins.

   (b) What is the principle of E.S.R. determination?

   (c) Give the full form of ELISA.

   (d) What do you mean by haematuria? In what clinical condition it occurs?

   (e) What is meant by the term LFT?

   (f) How many heart sounds can be heard easily with stethoscope? Name them.

   (g) Write down the full forms of MRI and CT scan.

   (h) What is meant by hyperglycaemia?

## Group-B

2. Answer *any two* questions from the followings:                    5×2=10

   (a) What is the percentage of different leucocytes present in our blood? Name two agranulocytes. What is leukemia?
   2+2+1=5

   (b) What physical characteristics are considered for urine analysis? Name three abnormal constituents of urine.
   2+3=5

   (c) What is hypertension? What are meant by systolic and diastolic pressures? What is the average normal heart rate of a man?
   2+2+1=5

   (d) Write the name of the causative agent of Tuberculosis. Mention the symptoms and mode of transmission of the disease. What is BCG?
   1+1+1+2=5

## Group-C

3. Answer *any two* questions from the followings:

10×2=20

(a) Describe the procedure (direct method) of platelet count using haemocytometer. What is the normal platelet count per cubic mm of blood? Mention the functions of platelets.    6+2+2=10

(b) What is meant by PET scan? How does PET work? Why PET is considered as more safe procedure than X-rays and CT scan?

2+5+3=10

(c) Write down the name of causative agents of benign tertian malaria and malignant tertian malaria of man. Describe in brief the clinical features and preventive measures of the disease. Comments on the diagnosis of malaria.

2+2+3+3=10

(d) (i) Classify the different types of white blood corpuscles (W.B.C.) on the basis of their staining and microscopic appearance with suitable diagrams.

(ii) Define haematocrit. How the haematocrit value associated with the Diabetes Insipidus diagnosis?

5+(1+4)=10

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