



**2022/TDC/ODD/SEM/
ZOOSEC-501T/037**

TDC (CBCS) Odd Semester Exam., 2022

ZOOLOGY

(5th Semester)

Course No. : ZOOSEC-501T

(Aquarium Fish-Keeping)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any *three* questions from the following : 1×3=3
- (a) Name two exotic freshwater ornamental fish species.
 - (b) Mention two benefits of ornamental fish-keeping.
 - (c) Mention the names of two indigenous ornamental fish species.
 - (d) Mention two general characteristics for selecting a healthy ornamental fish species.



(2)

2. Answer any *one* question from the following : 2
- (a) Write a brief note on egg layers.
 - (b) Write a brief note on live bearers.

3. Answer any *one* question from the following : 5
- (a) Define aquarium. Discuss the types of aquaria. 1+4=5
 - (b) Discuss the pre-requisites for ornamental fish culture.

UNIT—II

4. Answer any *three* questions from the following : 1×3=3
- (a) In which order does goldfish belong?
 - (b) Write about the sexual dimorphism of goldfish.
 - (c) In which order does angelfish belong?
 - (d) Write about the sexual dimorphism of angelfish.

5. Answer any *one* question from the following : 2
- (a) Write about the systematic position and sexual dimorphism of guppy.

(3)

- (b) Write about the systematic position and sexual dimorphism of molly.
6. Answer any *one* question from the following : 5
- (a) Discuss the morphology, behaviour and sexual dimorphism of swordtail fishes. 2+1+2=5
 - (b) Discuss the morphology, behaviour and sexual dimorphism of butterfly fishes. 2+1+2=5

UNIT—III

7. Answer any *three* questions from the following : 1×3=3
- (a) What are the natural foods used in ornamental fish-keeping?
 - (b) What are the supplementary feeds used in ornamental fish-keeping?
 - (c) What are the complete feeds?
 - (d) What are the dry foods used in ornamental fish-keeping?



(4)

8. Answer any *one* question from the following : 2

(a) What are the points to be considered in selecting live feeds?

(b) Give six examples of live ornamental fish foods.

9. Answer any *one* question from the following : 5

(a) Discuss the preparation and composition of formulated fish feeds:

(b) Discuss the common sources of ornamental fish feeds.

UNIT—IV

10. Answer any *three* questions from the following : $1 \times 3 = 3$

(a) How is the conditioning of fish done before transportation?

(b) What is pre-packing?

(c) What is final packing?

(d) What do you mean by forwarding?

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(Continued)

(5)

11. Answer any *one* question from the following : 2

(a) Mention the essential principles for transporting live fishes.

(b) Write briefly about the fish handling during transportation.

12. Answer any *one* question from the following : 5

(a) Discuss the different types of containers used in the transportation of ornamental fishes.

(b) Discuss the different factors that affect the efficiencies of ornamental fish transportation.

UNIT—V

13. Answer any *three* questions from the following : $1 \times 3 = 3$

(a) Is tap water safe for aquarium fishes?

(b) What is the ideal pH for most of the aquarium fishes?

(c) What should be the ideal nitrate level for most of the aquarium fishes?

(d) Does aquarium need daily change of water?

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(Turn Over)



(6)

14. Answer any *one* question from the following : 2

(a) What are the steps to be followed to maintain an aquarium properly?

(b) What are the essential parameters required to be checked in a routine manner to maintain water quality of an aquarium?

15. Answer any *one* question from the following : 5

(a) Discuss the budget for setting up an aquarium fish farm as cottage industry.

(b) Discuss the other different aspects of aquarium maintenance apart from maintenance of water quality.
