

U.G. 2nd Semester Examination - 2025

ZOOLOGY

[Skill Enhancement Course (SEC)]

Course Code : ZOO-SEC-T-2

**(Basic Concept of Aquaculture, Induced Breeding
and Integrated Fish Farming)**

[NEP-2020]

Full Marks : 35

Time : 1½ Hours

The figures in the right-hand margin indicate marks.

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

1. Answer any five questions of the following : $1 \times 5 = 5$
 - a) What is Hapa? State its application.
 - b) Why is cow dung used in organic aquaculture?
 - c) Name one bacterial fish disease with its causative agent.
 - d) State one entrepreneurship opportunity in aquaculture.
 - e) What do you mean by Monoculture of fish? Give example.
 - f) Define Organic Aquaculture.

[Turn Over]

g) State the advantages of 'Mahua Oil Cake' in Aqua-farming.

h) What are fish pheromones? Give one example.

2. Answer any two questions of the following :

5×2=10

a) Name two synthetic hormones used in induced breeding. What is integrated fish farming? What are its objectives? 1+2+2

b) Define Inbreeding Depression. What are the adverse effects of inbreeding depression in fishes? How can these effects be overcome? 1+2+2

c) What is Biofiltration? What are the possibilities and limits of waste water fed aquaculture? 2+3

d) Discuss on impact of aquaculture on the livelihoods and food security of rural communities.

3. Answer any two questions of the following :

10×2=20

a) What is cage culture of fish? Name two exotic fish species cultured in open water body cage culture. Write down the method and advantages of cage culture system. 2+2+6

b) What is Ichthyophthirius? Write down its causative agent. What are the symptoms? Add a note on its prophylaxis and treatment.

1+1+2+6

c) How does aquaponics differ from hydroponics? What is biofloc technology? How oxygen is maintained in this technology? Why is polyculture considered more profitable than monoculture in aquaculture? 3+2+2+3

d) What is Columnaris disease? State its diagnosis and control measures. Why are the synthetic hormones more popular than pituitary extracts among fish farmers? Discuss the site selection and advantages of pen culture. 2+3+2+3