



QP CODE: 24027460



24027460

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE
EXAMINATIONS, OCTOBER 2024**

Third Semester

B.Sc Zoology Model II Aquaculture

VOCATIONAL COURSE - ZA3VOT06 - FISH NUTRITION

2017 Admission Onwards

671B0A70

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Distinguish between Carboxypeptidase and Aminopeptidase.
2. Distinguish between Acidic, Basic and Neutral Amino Acids with Examples.
3. Distinguish between Monoenoic and polyenoic fatty acids with suitable examples.
4. Distinguish between Fat Soluble and water soluble Vitamins with examples.
5. What are the components of Ash and Nitrogen Free Extract?
6. Mention the influence of Physiological conditions on digestibility coefficient.
7. What is Nitrogen Balance index?
8. What is Fish Silage? How is it prepared?
9. What is the influence of water temperature on energy requirement in fishes?
10. What are Grower feeds?
11. Explain Drop Feeders.
12. What is Food Efficiency Ratio? What is its significance in Aquaculture?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What is a Polysaccharide? Explain classification of Polysaccharides and mention the common polysaccharides. Add a note on the function of carbohydrates.
14. Which are the major Minerals in Fish Nutrition? Comment on the functions, deficiency diseases and sources of any five of the Major Minerals.





15. Explain Gross Energy, Net Energy and Retained Energy in Nutritional Bioenergetics.
16. Explain Food Growth Equation.
17. Explain briefly the steps in the preparation of pelleted feeds.
18. Explain Antinutrients, Accidental Contaminants and Steroid like substances in the diet.
19. What are the different factors to be considered in the process of feed formulation? Explain the different methods of feed Formulation.
20. Give a brief account of the various equipments used in feed manufacturing mills.
21. Explain Capital Investement , Fixed Costs, Variable Costs and Breakeven Price in Aquaculture.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Describe the digestive sytem of a teleost fish, elaborating the structural differences in digestive tract according to feeding habits of fishes.
23. What are Food Additives? Explain different food additives and their functions in prepared feeds.
24. What is meant by Calorific value? Explain the different methods for estimating the calorific value of feedstuffs.
25. What are Growth Promoters? Explain the different types of Growth Promoters used and their importance in fish culture.

(2×10=20)

