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B.F.Sc./5th Sem /25

2025

5th Semester Examination

4-Years B.F.Sc.

Paper : BFSC-508

Jayan

(Fish By-Products and Waste Utilization)

Full Marks : 50

Time : Two Hours

*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 *ten* questions : 2×10=20

- (a) What is chitosan? Mention its uses.
- ✓ (b) Mention two uses of fish meal.
- ✓ (c) Mention the environmental impact of fish waste.
- ✓ (d) What are the uses of Gelatin?
- ✓ (e) What is pressing in wet reduction method?
- ✓ (f) Define pearl essence.
- (g) State the role of Utilization of Fish Protein Isolate (FPI).



(2)

- (h) Mention two common uses of fish body oil.
- (i) What are the major by-products derived from shark processing (shark fin rays, liver oil)?
- (j) Write two uses of fish hydrolysate.
- (k) Mention the health benefits of omega-3 fatty acids.
- (l) What is deodorized fish meat?
- (m) Define carrageenan.
- (n) Write a short note on Isinglass.
- (o) What are the uses of fish skin for producing leather?

Group - B

2. Answer any six questions :

5×6=30

- (a) Discuss the biochemical products obtained from fish and their importance.
- (b) Write the problems associated with rancidity in fish oil and its control.
- (c) Discuss the role of fish waste as a source of bioactive peptides.
- (d) Explain the methods for extracting chitin and chitosan from crustacean waste.
- (e) Identify the key methods for utilizing waste from fish canning industries.



(3)

✓ (f) Describe different types of packaging materials used for frozen fish products.

✓ (g) What is agar-agar and mention its uses? Describe the process and uses of Fish Glue. 2+3

(h) Briefly describe the extraction of Collagen from fish waste.

✓ (i) Discuss the gelatin extraction method from fish skin and bones.

✓ (j) Write a note on alginates and their industrial applications.
