



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 6th Semester Examination, 2022

IFFADSE04T-INDUSTRIAL FISH AND FISHERIES (DSE3/4)
FISH BYPRODUCTS AND WASTE UTILIZATION

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer any **seven** questions from the following: 2×7 = 14
 - (a) Mention the use of fish protein concentrate.
 - (b) Mention the uses of pearl essence.
 - (c) Write the important uses of chitin.
 - (d) What is the difference between FPC and fish meal?
 - (e) Mention two important uses of isinglass.
 - (f) What is wet reduction method?
 - (g) What are the merits of fish protein hydrolysate?
 - (h) What do you mean by by-product?
 - (i) Mention the sources of fish oil.

2. Write short notes on any **two**: 3×2 = 6
 - (a) Fish oil and fish meal
 - (b) Fish maw
 - (c) Shrimp waste
 - (d) Deodorized fish meat.

3. Answer any **four** questions from the following: 5×4 = 20
 - (a) Briefly describe the use of shark by-products. What are the advantages and disadvantages of shark leather product? 2+3
 - (b) What is fish glue? Briefly describe the process of preparation of fish glue. 2+3
 - (c) What is the economic importance of fish meal? Mention the pros and cons of wet rendering technique of fish meal preparation. 2+3

- (d) What is fish gelatin? Mention the application of fish gelatin in our daily life. 2+3
- (e) How does fish hydrolysate differ from fish silage? What is the disadvantage of acid hydrolysis to prepare fish hydrolysate? Mention the application of fish hydrolysate. 2+1+2
- (f) What is by-product of fish industry? Briefly describe the main by-products of fish industry. 1+4

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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