

Total number of printed pages = 3

19/2nd Sem/PFET 2111

2022

**UTILIZATION OF FOOD INDUSTRY
BY-PRODUCTS**

Full Marks – 100

Time – Three hours

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

Answer any *five* questions.

1. (a) State the differences among fish meal, fish protein concentrate and fish protein hydrolysate. 5
- (b) Explain the production of fish protein concentrate in detail. 10
- (c) Give three applications each of fish oils and fish protein concentrate. 5
2. (a) Name any four important wastes and by-products generated from poultry processing industry and give two applications of each. 6

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- (b) Name the nutritional components present in poultry blood and plasma and give the meat industry and non-meat industry applications of poultry blood and plasma. 8
- (c) Give the process flow chart for the production of fish protein hydrolysate. 6
3. (a) Explain the manufacturing process of pulp and paper in detail. 15
- (b) Explain the working of down draft rice husk furnace. 5
4. (a) Explain the manufacture of furfural from tapioca waste. Mention few applications of furfural. 10
- (b) Give three applications of crude rice bran oil and give the process flow chart for the production of refined rice bran oil from crude rice bran oil. 10
5. Write about utilization of fruit processing by-products specially mentioning pineapple, citrus, mango, banana, apple, grapes etc. for industrial application. 20



