Ref. No. : Ex/FTBE/PC/B/T/224/2023

B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING SECOND YEAR SECOND SEMESTER – 2023

Subject: Food Process Technology I **Time: 3 hr** **Full Marks: 100**

Part I (50)

Instructions: Use Separate Answer scripts for each Part

Answer any <u>five</u> questions:

1. Describe the method of on board handling of fish. Describe any one method of medium distance transportation of fish. 5+5=10 (CO1)

2. How the fish quality of fish is determined by physical and chemical methods? 5+5=10 (CO1)

3. Describe the types, reason and remedies of chemical and biological spoilage of canned fish products? 5+5=10 (CO1)

4. Describe the types of chemical reactions occur during the process of drying of fish? What are the importance of purity of salt in salt curing of fish? 5+5=10 (CO1)

5. What is the importance of smoking in preservation of fish? What are the different types of curing? 5+5=10 (CO1)

6. Explain the working principle of two different deboning machines. 5+5=10 (CO2)

7. Explain the method of production of (any two): 5+5=10 (CO2)

i. Fish meal

ii. Fish protein concentrate

iii. Fish sauce

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B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING SECOND YEAR SECOND SEMESTER EXAM 2023	**FOOD PROCESS TECHNOLOGY - I**	**Part - II (50)**	**Time 3 Hours**

Use Separate answerscript for each part.

Answer question no. 5 and any three from the rest.

1. With a neat diagram show the major cuts of meat of an animal. What are the main features of noble cuts of meat? What are bound, immobilised and surface water in meat? 7+3+5

2. What are three different kinds of protein present in meat and what are their main components? What are the main characteristics of connective tissue proteins? What are the different stages of fat deposition in meat? 4+6+5

3. What are the effects of sodium chloride as a curing agent on meat? How is vacuum curing of meat done? Explain with suitable diagrams. 5+10

4. With a suitable diagram describe the internal structure of the Egg. What are chemical changes that take place when the egg deteriorates under storage? 10+5

5. Describe any one of the following 5
   (i) Stearic effect influencing water holding capacity of meat.
   (ii) Myofibrillar proteins in meat.
   (iii) Influence of phenols and carbonyl compounds from smoke in meat
   (iv) Dry or fermented sausages.