Ref. No. : Ex/FTBE/PC/B/T/224/2024

**B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING SECOND YEAR**

**SECOND SEMESTER – 2024**

**Subject : FOOD PROCESS TECHNOLOGY I**

**Time: 3hr** **Full Marks: 100**

**( 50 Marks for each Part)**

**Part I (Total Marks 50)**

**Instructions : Use Separate Answer scripts for each part**

Answer any **five** questions from the following: 5x10=50

1. What type of the spoilages are found in canned fish? What are the reason and remedy for those spoilages? 4+3+3=10 (CO1)

2. What are the importance of the purity of salt during curing? What are the difference between hard cure, light cure and pickle curing methods? 5+5=10 (CO1)

3. How smoke produces preservative effect to fish? How use of mechanical kiln improves the process of smoking? What is the difference between hot and cold smoking of fish?

5+2+3=10 (CO1)

4. How quality of fish is assessed by Physical and chemical methods? 5+5=10 (CO1)

5. How the principle of modified atmosphere is used to extend the shelf life of fish? 10 (CO1)

6. What is immersion freezing? Explain the method of immersion freezing applied to fish. What is the disadvantage of this method? How the problem can be avoided? 1+4+2+3=10 (CO1)

7. Write a short note on any one: 10 (CO2)

i. Minced fish production using belt and drum deboner and its use.

ii. Production of surimi and its conversion to Kamaboko.

[ Turn over

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**B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING**
**SECOND YEAR**
**SECOND SEMESTER EXAM 2024**

**Subject:**
**FOOD PROCESS TECHNOLOGY - I**

**Part – II (50 marks)**

Use separate answerscript for each part.

Answer question no. 5 and any 3 from the rest.

1. Discuss the theories which can explain factors influencing water holding capacity of meat. Name any three sarcoplasmic proteins present in meat and state their important characteristics. 10+5 (CO3)

2. Describe the process of Wiltshire curing of meat along with the brine composition used for the purpose. Explain how excessive use of nitrite in curing of meat turn out to be toxic. 10+5 (CO3)

3. Why temperature of smoke generation is important in smoking of meat? Describe how cooked sausages including frankfurters are made. 5+10 (CO3)

4. With a neat diagram describe the internal structure of an egg. What are the deteriorative chemical changes that may take place in an egg? 10+5 (CO4)

5. Write short notes on: (any one) 5 (CO3 and CO4)
   (a) Stages of deposition of fat in animal body
   (b) Fresh sausages
   (c) Dry ageing of meat
   (d) Haugh's unit, white index and yolk index in the evaluation of the quality of an egg.