

*This question paper contains 2 printed pages.*

*Your Roll No. ....*

**Sl. No. of Ques. Paper : 2054** **GC-3**  
**Unique Paper Code : 32201305**  
**Name of Paper : Technology of Dairy and Sea Food**  
**Name of Course : B.Sc. (Hons.) Food Technology (CBCS)**  
**Semester : III**  
**Duration : : 3 hours**  
**Maximum Marks : 75**

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

*Attempt five questions in all. Question No. 1 is compulsory.*

*All questions carry equal marks.*

1. State whether True or False:

- (a) India is the largest exporter of fish in the world.
- (b) The color of whey is due to carotene pigment.
- (c) Surimi with cryoprotectants remains stable during freezing.
- (d) Surface tension of homogenised milk is lower than unhomogenised milk.
- (e) Shrimps are larger than prawns.

1×5=5

Answer the following:

- (f) Define Butter.
- (g) Name any *four* important smoke components.
- (h) What is the importance of Refractive Index of milk?
- (i) What is pindang?
- (j) How is casein stabilized in milk?

2×5=10

- 2. (a) Explain the principle and working of any *two* processing equipments used in milk plants, with the help of well labelled diagrams. 4+4
- (b) Discuss the Surimi process and compare surimi with fish mince products. 4+3
- 3. (a) How can MAP be beneficial for extending the shelf life of fish? 5
- (b) Give a brief description of various enzymes present in milk. 5
- (c) Describe the process of flavored milk production. 5

**P. T. O.**

4. Explain the following with the help of a flowchart:
- (a) Fish Sauce
  - (b) Fish Protein Concentrates
  - (c) Milk Powder. 5×3=15
5. (a) What are the types of proteins present in milk? Discuss their fractions and differences? 2+6
- (b) Write about the changes occurring in the quality of fish/seafood during frozen storage. 7
6. (a) Give a detailed note on milk fat. 7
- (b) Describe the pre-process operation in canning of fish. Draw a flowchart for canning of Tuna. 4+4
7. (a) Explain the modern smoking kiln. 7
- (b) Write about  $\alpha$  and  $\beta$  lactose and the importance of lactose in dairy industry. 4+4