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### KERALA AGRICULTURAL UNIVERSITY B.Tech.(Food Technology) 2020 Admission VI Semester Final Examination – July 2023

Processing of Fish and Marine Products (2+1)

Marks: 50 Time: 2 hours

(10x1=10)

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## Fill in the blanks

- 1. Fisheries sector has been recognized as a ...... Sector in India.
- 2. Moisture content of both freshwater and marine fish and shellfish is in the range of .....

3. Surimi is an ..... product, which is latter used to make other products.

- 4. Target organism in canning process is .....
- 5. ..... is the starting material for surimi production.

#### State True or False

- 6. Fresh fish muscle is microbiologically unstable.
- 7. Fish soup powder can be prepared by using meat from any cheap fish.
- 8. Radiation can destroy only microorganisms.
- 9. Freezing point of fish is 0 to -5°C.
- 10. Moisture content of fish wafer is below 6%.

#### Write short notes on ANY FIVE of the following

- 1. Explain the chilling of fish.
- 2. List out the important pigments of fish and shellfish.
- 3. What is fish paste?
- 4. What is 'D value'?
- 5. Classification of fish based on the total fat/lipid content
- 6. What are the minced fish based products?
- 7. Define vacuum packaging.

#### Answer ANY FIVE of the following

- 1. Discuss about the proximate composition of fish.
- 2. Briefly explain about the quality changes involved in frozen fish storage.
- 3. Discuss the flow-chart for canning of tuna.
- 4. Explain about the functional quality of minced fish.
- 5. Discuss the advantages and disadvantages of MAP.
- 6. Define the seven principles of HACCP.
- 7. List out the hazardous microorganisms associated with food.

#### Write an essay on ANY ONE of the following

- 1. Explain the surimi process traditional and modern production lines.
- 2. Explain in detail about the fish canning process.

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(5x2=10)

# (5x4=20)

(1x10=10)