

KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2011 Admission
VIIth Semester Final Examination- January-2015

Cat. No: Fdpr.4106

Title: Processing of Marine Products (2+0)

Marks: 80

Time: 3 hours

I Fill in the blanks or State True or False

(10 x 1 = 10)

1. Application of layer of ice to frozen fish is called
2. spores are used to test the efficiency of wet heat sterilization.
3. The acceptable limit of TVBN in frozen fish is
4. Sorption isotherm of a product is drawn by plotting water activity against
5. Acid most commonly used for pickling fish
6. Reconstitution property of dried fish is adversely affected by
7. Example for a natural antioxidant
8. Struvite formation in canned crustaceans is chemically
9. Rate of spoilage is temperature dependant.
10. Muddy flavor of fish is caused by

II Explain the following

(10 x 3 = 30)

1. Colombo curing of fish.
2. How air temperature influences drying rate of fish.
3. Fishes from tropical waters have longer shelf life on ice than those from temperate waters. Give reason.
4. Heat capacity of frozen fish is 0.4. How much calories are required to reduce the temperature of 10 kg fish from -5°C to -25°C.
5. Advantages and disadvantages of retortable pouch.
6. H.T.S.T process
7. Commercial sterilization
8. Masmin
9. Surimi
10. Fish silage
11. Water activity
12. Omega 3 fatty acids

III Write short notes on any SIX

(6 x 5 = 30)

1. Role of myofibrillar protein in fish paste product development.
2. Explain freeze drying principle with phase diagram.
3. Describe the method of preparation of fish leather.
4. Explain the canning of tuna fish in detail.
5. Explain radurization, radacidation and radappertization.
6. Compare chilling of fish using ice and refrigerated sea water.
7. Which is the best method of freezing small uniform sized shrimp and explain the steps involved in this?
8. Discuss on bacterial and fungal spoilage in cured fishes and its control measures.

IV Write any ONE

(1 x 10 = 10)

1. Methods of treating effluents on seafood processing industries.
2. The composition of a certain fish is given below.

Moisture = 76%, Protein = 17%, Fat = 4% and Minerals = 3%.

If it is air dried to a final moisture content of 20%, what will be its yield and final composition?