



KERALA AGRICULTURAL UNIVERSITY  
B.Tech.(Food Engg.) 2014 Admission  
VII Semester Final Examination-January-2018

Fdpr.4106

Processing of Marine Products (2+0)

Marks: 50

Time: 2 hours

**I Fill in the Blanks**

(10x1=10)

- 1 In -----stage the temperature falls below the freezing point, without forming ice crystals.
- 2 Ice water ratio in chilled sea water is -----
- 3 Dun spoilage is caused by -----
- 4 ----- enzyme is mostly used in bating process of fish leather preparation.
- 5 Time in minutes required to kill an organism in a specified medium at 121.1°C is called as -----value.

**Match the Following**

- |                         |                  |
|-------------------------|------------------|
| 6 Thermal arrest period | a Sauce          |
| 7 Indigenous bacteria   | b Smoked fish    |
| 8 Pink spoilage         | c Freezing stage |
| 9 Benzopyrene           | d Sarcina        |
| 10 Patis                | e Vibrio         |

**II Write Short notes on any FIVE of the following**

(5x2=10)

- 1 Spoilage of fish during chilled storage.
- 2 Define freezing
- 3 Eutectic point
- 4 Freezing Rate
- 5 Freezing time
- 6 Define enthalpy and entropy
- 7 Principle of salting

**III Answer any FIVE of the following.**

(5x4=20)

- 1 Heat resistance of microorganisms
- 2 TDT curve
- 3 Write about principle and advantages of aseptic packaging
- 4 Explain different types of mechanical dryers
- 5 Different types of salting methods
- 6 Different types of smoking methods
- 7 Write about Fish sauce

**IV Write an essay on any ONE of the following**

(1x10=10)

- 1 Explain the extraction methods involved in fish body oil and liver oil
- 2 Write about principle involved in Retort pouch Processing and explain the merits and demerits.

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