

**2018**

**M.Sc.**

**4th Semester Examination**

**FISHERIES SCIENCE**

**PAPER—FSC-401**

**Subject Code—28**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Unit—I**

*(Fish Processing Technology,  
Food Safety and Quality Assurance)*

**1. Answer any two questions from the following : 2×2**

**(a) What is meant by shelf life of fish ?**

*(Turn Over)*

- (b) Write the proximate composition of Pomfret.
- (c) Why fast freezing is advantageous than slow freezing?
- (d) State the benefit of IQF.

2. Answer any *two* questions from the following : 2×4

- (a) Write a brief account on the personal hygiene and environmental hygiene to be followed in a fish processing plant.
- (b) Describe the quality control of fishery products for the internal market.
- (c) How much ice to be required for presentation of 150 kg freshwater prawn from 20°C – 0°C ? (Specific heat of fish 4 J/g and latent heat of ice is 334.7 KJ)
- (d) Briefly narrate the method of quality assessment.

3. Answer any *one* question from the following : 1×8

- (a) (i) What is fish spoilage ?
- (ii) Briefly explain the causes of fish spoilage.

(iii) Add a note on post-mortem bio-chemical changes of fish tissues. 1+3+4

(b) Short note : 2×4

(i) Cryogenic freezing ;

(ii) Freezing curve.

### Unit—II

*(Fisheries Extension, Fisheries Economics & Marketing)*

4. Answer any *two* questions from the following : 2×2

(a) What is 'marginal utility' and 'total utility' ?

(b) Define 'GDP' Add a note on fisheries GDP in India.

(c) Explain demand curve. Write the factors effect on demand curve.

(d) State the objective of KVK in respect of fisheries point of view.

5. Answer any *two* questions from the following : 2×4
- (a) Explain the role played by the women in Indian fisheries.
  - (b) Describe the Socio-economic characteristics of marine fishers.
  - (c) Discuss about the contribution of MPEDA in fisheries development.
  - (d) Give an idea about aquaculture project cycle.
6. Answer any *one* question from the following : 1×8
- (a) (i) What do you mean by fisher flock ?
  - (ii) Discuss in details the role of FFDA for fisheries development of India.
  - (iii) Add a note on BFDA. 2+4+2
  - (b) (i) State the objectives of fisheries extension.
  - (ii) Discuss in details the fisheries extension methods.
  - (iii) Add a note on NGO's helps in fisheries extension. 1+4+3