

B.sc. FISHERIES BIOLOGY SYLLABUS UNDER CBCS
(With effect from 2016-2017)
VI-SEMESTER
PAPER VIII- FISHERIES ECONOMICS & EXTENSION (Theory)

Max Marks:75

UNIT –I-Economics- Production Cost benefit analysis and Economics of Unit Costs

1.1 The basis of Production ; Interrelationships of aquaculture system .

Production Economics; Basic economic Principles applied to fish Production;

1.2 Input-output relationships, maximum level of input, least-cost combination of inputs, Maximum level of output, combination of products , economics of size.

1.3 Cost- Benefit Analysis: Production costs , Variable costs, revenue, economic analysis; Partial budget analysis , cash flow analysis.

1.4 Economics of fish Production farm (Unit costs). Fresh Water fish farming in ponds – a Small scale business,

1.5 composite fish culture – large scale and Technical parameters that need to be considered.

UNIT –II Marketing economic and economic feasibility of investment analysis

2.1 Marketing Economics: Fish marketing Methods in India;

2.2 Basic concepts in demand and price analysis; demand , supply and fish prices, elasticity of demand (Price elasticity of demand , income elasticity of demand , cross elasticity of demand).

2.3 Economic feasibility of investment analysis ; Methods of feasibility analysis; the payback Period , average rate of return, discounting method,

2.4 Net present Value , Benefit- Cost Ratio, Internal Rate of Return.

UNIT _III Fisheries extension .

3.1. Fisheries training and Education in India: Training Institutes, Universities , Research Organizations.

3.2 .Institutional funding to fisheries and aquaculture Sector.

3.3 .Socio-economic Conditions of fishermen and fish sector.

3.4 . Fishermen Co-operative Societies.

REFERENCE BOOKS

1. Balachandran KK. 2001. *Post-harvest Technology of Fish and Fish Products*. Daya Publ.
2. Bond, et al. 1971. *Fish Inspection and Quality Control*. Fishing News Books, England.
3. Clucas IJ. 1981. *Fish Handling, Preservation and Processing in the Tropics*. Parts I, II. FAO.
4. Gopakumar K. (Ed.). 2002. *Text Book of Fish Processing Technology*. ICAR.
5. Govindan, TK. 1985. *Fish Processing Technology*. Oxford-IBH.
6. Hall GM. (Ed). 1992. *Fish Processing Technology*. Blackie.
7. Huss HH, Jakobsen M & Liston J. 1991. *Quality Assurance in the Fish Industry*. Elsevier.
8. John DEV. 1985. *Food Safety and Toxicity*. CRC Press.
9. Krenzer R. 1971. *Fish Inspection and Quality Control*. Fishing News.
10. Larousse J & Brown BE. 1997. *Food Canning Technology*. Wiley VCH.
11. Nambudiri DD. 2006. *Technology of Fishery Products*. Fishing Chimes.
12. Regenssein JM & Regenssein CE. 1991. *Introduction to Fish Technology*. Van Nostrand Reinhold.
13. Rudolf K. 1969. *Freezing and Irradiation of Fish*. Fishing News (Books).
14. Sen DP. 2005. *Advances in Fish Processing Technology*. Allied Publ.

PRACTICALS-30 Marks

1. Determination of moisture content in fish and fishery products
2. General description – freezing
3. Processing shrimp
5. Drying of fish
6. Organoleptic analysis of fish
7. Preparation of fishery byproducts
8. Preparation of shark fin rays, fish maws, chitin and fish wafer
9. Fish pickling and Value added fishery products, fish curry, cutlets, fish finger.
11. Filleting of fish, treatments, glazing, packaging, freezing, Processing of Prawns, Lobster, Squid, Cuttle Fish, Crab etc. in different styles. Packaging and Freezing, Freezing curve, determination of freezing point.

Joshia Begu