

2023

FOOD PRODUCT TECHNOLOGY - VI
(FISH, MEAT AND POULTRY TECHNOLOGY)

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1. a) Discuss the classification of marine fish with examples. Cite one example each of PUFA in fresh water and marine water fish. 3+2
- b) Describe the changes in fish quality during icing process. 4
- c) Discuss an ideal icing method during fish catching and handling. 3
- d) Mention the detailed protein profile in fish. Mention the availability of two important vitamins and minerals in fish. 2+2
- e) What is belly burn? Why gutting is important? 1+3
2. a) Discuss the role of TMAO and TMA in marine fish. 3
- b) Briefly describe different types of fish spoilage with the involvement of biochemical reactions and spoilage indicators. 6
- c) Mention the occurrence of different lipids in fish. 3
- d) Express mathematically fish freshness index and mention the major factors influencing fish freshness 2+1
- e) What do you understand by fish quality characteristics? Describe briefly organoleptic quality of fresh and cooked fish. 2+3
3. a) How prawn is processed by using CPD technology? 4
- b) Discuss any fish canning process with flow diagram. 4
- c) State the functions of glazing agent in fish processing. Give two examples. 3+1
- d) Describe plate freezing of fish. Give two examples of cryogenic agents in fish freezing. 3+2
- e) What is fish curing process? What is fish glue? 1+2
4. a) How FLO is prepared? What is its Chitosan? 3+1
- b) Explain with flow diagram the preparation of fish sausage. 5+1

- c) Describe the methodology of fish meal processing. 5
- d) Mention the objectives of smoking process. Discuss any one meat smoking process. 2+3
5. a) Discuss the effect of nitrate/nitrite mixture in meat curing process. 6
- b) Discuss meat tenderization technique followed by electrical stimulation. Mention four enzymes as meat tenderizers with their resources 4+2
- c) Describe two important meat defects. 4
- d) What is rigor mortis? Give some examples of different factors influences in post mortem glycolysis of meat. 2+2
6. a) Give a brief description of any fermented meat sausage. 6
- b) Give the name of natural antimicrobial found in egg white? Give the composition of egg shell. 1+2
- c) Describe the biochemical reactions involved in enzymatic desugarisation of egg. 3
- d) Discuss about different egg products with flow diagram. 4
- e) Explain any egg white pasteurization technique. 4
7. a) Describe about different poultry meat spoilage bacterias and their control.. 6
- b) Discuss industrial poultry meat processing strategy. 8
- c) Give a brief note on meat industry by products with their applications. Give two examples of packaging materials used for processed meat products. 4+2

ESTD. : 2006
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