

CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY

FACULTY OF FISHERIES

MS in Fishing and Post-Harvest Technology

January-June Semester, Final Examination-2018

Course No. IFM-501, Course Title: Industrial Fishery Management

Total Marks: 40; Time: 2 hours

*Answer any **four (04)** from the following questions. Figures in the right margins indicate full marks.*

1. a) Do you think 'fisheries resource as a renewable resource'? Explain. 4
b) Give a scenario about the catch composition and contribution of industrial fisheries in the national economy of Bangladesh in the fiscal year 2016-17. 6
2. a) Describe briefly how will you plan and design a fish smoking plant? 5
b) What are the FDA eight key sanitation areas? Describe them briefly. 5
3. a) What do you mean by cost-effective fishing? What is the scenario of cost-effective fishing in Bangladesh and its underlying causes? 1+4
b) Propose some ideas on sustainable effective fishing in the Bay of Bengal. 5
4. a) What do you mean by total utilization of fishery waste? How fish waste can be utilized effectively by total utilization concept? 5
b) Illustrate different marketing channels of fish. What are the barriers of marketing channels in Bangladesh? Give your suggestions for a better scenario. 5
5. Write short notes on any two of the followings: 5×2
a) Effluent Treatment Plant (ETP) management of a fish processing industry
b) Chitin and chitosan c) Fish protein concentrate (FPC)



Chittagong Veterinary and Animal Sciences University

Department of Fishing and Post Harvest Technology

M S in Fishing and Post Harvest Technology

January – June Semester, 2018; Final Examination

Course Code & Name: AFT 501(T) & Advanced Fishery Products Technology

Time: 2 hours; Full Marks: 40

Answer any 4 (FOUR) the following questions:

1. Give a brief overview on primary processing and secondary processing. Write the current status of raw material used in the shrimp processing industries. 10
2. What is surimi? Write down the features to be considered to select raw materials for surimi. How will you prepare surimi from marine fish? 10
3. How will you prepare fish mince? Name different types of fishery products derived from surimi. 10
4. Give in detail production procedure of 'Fish Ham', 'Fish Ball', 'Fish Stick' and 'Fish nugget'. How will you store it before consumption? 10
5. Define fish curing. Which fish are used as raw materials for *Nga-pi* preparation? Give a detail manufacturing protocol of fish paste (*Nga-pi*) in Bangladesh. 10

CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY
FACULTY OF FISHERIES

MS in Fishing and Post-Harvest Technology
January-June Semester, Final Examination-2018

Course No. MFT-501, Course Title: **Modern Fishing Technology**

Total Marks: 40; Time: 2 hours

*Answer any **four (04)** from the following questions. Answer should be highly specific. Illustrate wherever necessary.*

1. a) What do you mean by artisanal fishing and industrial fishing? 'Artisanal fishing plays a vital role in boosting the fisheries economy of Bangladesh'- justify the statement. 1+4
- b) Write down the 'pros and cons' of single engine and twin engine. Which one is best? Justify your answer. 5
2. a) Illustrate the major fishing grounds of the Bay of Bengal with their location, distance from mainland, depth and major commercial fish species exploited from these fishing grounds. 4
- b) Differentiate between 'shoaling' and 'schooling'. Briefly describe the shoaling behaviour of *Tuna*. 2+4
3. a) What do you mean by 'ghost fishing'? Write down its effect and point out some recommendations to tackle it. 1+5
- b) Illustrate the working principles of ECDIS. Write down its application and advantages. 2+1+1
4. a) Differentiate between fish location and fish detection. Briefly describe the factors considered to locate a fishing ground. 2+5
- b) Illustrate the working principles of an echo-sounder. 3
5. Write short notes on any two of the followings: 5×2
 - a) EPIRBs
 - ii) GMDSS
 - iii) Engine mounting
 - iv) Code of conduct for responsible fishing.



CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY
FACULTY OF FISHERIES

MS in Fishing and Post-Harvest Technology
January-June Semester, Final Examination-2018

Course No. AFM-501, Course Title: Advanced Fisheries Microbiology
Total Marks: 40; Time: 2 hours

*Answer any **four (04)** from the following questions. Answer should be highly specific. Illustrate wherever necessary.*

1. a) What do you mean by spoilage? Briefly describe the mechanisms of spoilage of fish due to microbial activity. .5+4.5
- b) 'Fish is regarded as an ideal substrate for microbial growth'-justify the statement. 5
2. a) What do you mean by spoilage organism and spoilage association? What happens when microorganisms act upon amino acids? Cite examples. 2+2
- b) State FAO code of practice for fresh fish. Make a list of major microflora available in different crustaceans. 3+3
3. a) List down five (5) examples of industrially important microorganisms. Enumerate the effects of processing on microorganisms. 1+4
- b) What do you mean by browning problem in *Kamaboko*? Discuss the effects of surimi processing on microorganisms. 1+4
4. a) What do you mean by indicator organisms? Cite examples. Write down the characteristics of indicator organisms. 1+3
- b) Enumerate different types of indicator organisms. 6
5. a) What do you mean by indigenous and non-indigenous bacterial pathogens? Cite examples. 2
- b) Write short notes on any two of the followings: 4×2
 - i) Listeriosis
 - ii) Salmonellosis
 - iii) Microorganisms and public health concern



Chittagong Veterinary and Animal Sciences University

Department of Fishing and Post Harvest Technology

M S in Fishing and Post Harvest Technology

January – June Semester, 2018; Final Examination

Course Code & Name: ATF 501(T) & Analytical Techniques in Fish Processing

Time: 2 hours; Full Marks: 40

Answer any 4 (FOUR) the following questions:

1. Define quality. How will you measure peroxide value and iodine value of a fish sample? 10
2. Name different NPN compounds exists in marine fish. How will you estimate myofibrillar protein from a fish sample? 10
3. Write down general principles of chromatography. Write in brief on different types of chromatography. 10
4. Give a brief operational protocol of Gas Chromatography. 10
5. What do you mean by rigor. Write down the mechanism of rigor mortis in fish. How rigor influence on fish quality. How will you calculate rigor-index? 10

Chittagong Veterinary and Animal Sciences University
Department of Fishing and Post Harvest Technology
M S in Fishing and Post Harvest Technology
January – June Semester, 2018; Final Examination
Course Code & Name: APT 501(T) & Fish Preservation Technology
Time: 2 hours; Full Marks: 40

Answer any 4 (FOUR) the following questions:

1. What do you mean by onboard handling and onshore handling? How will you assess freshness of fish through physical method? 10
2. Give a detail overview on onboard handling of industrial fish catch. 10
3. What is CSW? How do you increase the shelf life of newly caught fish? Write different methods of short-term preservation techniques practiced in Bangladesh. 10
4. Name common methods employed in transportation of live fish. Write down factors affecting successful transport of live fish. 10
5. Write down the live transportation procedure of crab and lobster. 10