



Name :

Roll No. :

Invigilator's Signature :

**CS/B.Tech(FT)/SEM-5/FT-501/2010-11
2010-11**

**FOOD PROCESS TECHNOLOGY - II
(FISH, MEAT & POULTRY)**

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

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

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$
 - i) The protein which is responsible for the thickness of albumen of egg is
 - a) ovalbumin
 - b) conalbumin
 - c) ovomucin
 - d) none of these.
 - ii) Example of egg white protein is
 - a) livetin
 - b) phosvitin
 - c) avidin
 - d) both (a) and (b).
 - iii) The most abundant mineral present in egg is
 - a) potassium
 - b) sulphur
 - c) magnesium
 - d) calcium.
 - iv) Foot and mouth disease is caused by a
 - a) bacteria
 - b) virus
 - c) mold
 - d) none of these.



- v) *Bacillus anthracis* is a causative organism of a highly contagious disease
- a) foot and mouth disease
 - b) anthrax
 - c) cholera
 - d) none of these.
- vi) The chief muscle pigment is a protein called
- a) collagen
 - b) keratin
 - c) myoglobin
 - d) elastin.
- vii) Which one of the following is an example of involuntary muscle ?
- a) Walls of intestine
 - b) Walls of esophagus
 - c) Walls of blood vessels
 - d) All of these.
- viii) Which one of the following pigments is responsible for characteristic pink colour in cured, smoked pork products ?
- a) Myoglobin
 - b) Metmyoglobin
 - c) Oxymyoglobin
 - d) Mitrosyl hemochrome.
- ix) Which one of the following is a meat binder used in formulations of comminuted and emulsified meat products ?
- a) Sodium alginate
 - b) Sodium nitrate
 - c) Sodium chloride
 - d) None of these.
- x) Choose the correct sequence of meat muscles from animals according to increasing fat content :
- a) Fish < Lamb < Beef < Chicken
 - b) Beef < Lamb < Chicken < Fish
 - c) Fish < Chicken < Lamb < Beef
 - d) None of these.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 × 5 = 15

2. Why are pre-slaughter cares important in maintaining the quality of meat ? What cares should be taken during this period prior to slaughtering to maintain quality of meat and prevent health hazard of the consumers ? Discuss briefly.
3. What are the usual colours of flesh in poultry ? How are these colours related with muscle protein, myoglobin ? How is the colour of the skin related with the diet taken by the birds ?
4. What do you mean generally by the term “meat quality” ? What properties describe the ‘PSE’ and ‘DFD’ meat ? Mention the causes which result ‘PSE’ and ‘DFD’ meat.
5. What are the problems associated with canned fish and how can this be avoided ?
6. Write short notes on the following :

a) Minced fish

b) NPN in fish.



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.

3 × 15 = 45

7. What is the composition of Fish Protein Concentrate (FPC) according to the Indian legal standards ? Describe processing of FPC with a simple schematic diagram of the processing line using solvent extraction as the technique to produce fish oil as a by-product. 3 + 12
8. Describe briefly the three techniques used in drying of fishes by chemically binding water in fishes using humectants. List three factors affecting salt uptake during brining of fish. What is liquid smoke ? What are average shelf lives of hot-smoked and cold-smoked fish stored at ambient temperature ? 7 + 3 + 3 + 2
9. Describe the processing of spray dried whole eggs using a simple flow-diagram. Describe briefly egg preservation using water glass. Name two antimicrobial naturally occurring in egg albumin. 10 + 3 + 2
10. What is Bacon ? Give the classification of sausages. Discuss about the steps involved in processing of sausages. What is Bockwurst ? 2 + 3 + 8 + 2
11. Discuss the method of freezing of prawn.

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