

- emulsification and pre-bending?
- xi) What is Halal meat? Why Halal certification is necessary in some countries?
 - xii) What are the different methods of fish preservation?
 - xiii) Explain the labeled diagram of fish used for processing?
 - xiv) What are the different parameters for frozen storage of poultry, meat and fish products?
 - xv) What are the different by products of meat and fish processing industry?

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Discuss the status of meat, fish and poultry industry in India as well as globally.
- Q.4 What are the different types of fish for commercial importance? How the freshness of the fish and its quality is judged?
- Q.5 Explain the steps involved in the production of poultry meat.
- Q.6 Describe structure, chemical composition and nutritive value of egg. How egg is spoiled? What are the methods of preservation of whole egg and egg products?
- Q.7 What do you understand by meat curing? What are different methods of meat curing? Explain the role of nitrite in meat curing with respect to cured meat colour, antioxidant role and antimicrobial role.

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4th Sem. / Food Technology

Subject : Technology of Meat, Fish and Poultry Products

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 (a) Purplish red colour of meat is due to
 - (i) Myoglobin (Fe^{2+})
 - (ii) Nitric oxide myoglobin (Fe^{2+})
 - (iii) Met myoglobin (Fe^{3+})
 - (iv) oxymyoglobin (Fe^{2+})
- (b) What is a game meat?
- (c) What is the use of laminar flow bench?
- (d) Out of these, Which bacterial is found in processed/cured meat
 - (A) Moraxella (B) Pseudomonas
 - (C) Alcaligenes (D) Lactobacillus
- (e) What is pasteurization?
- (f) Pink rots in eggs is caused by the strains of
 - (i) Pseudomonas
 - (ii) Pseudomonas fluorescens
 - (iii) Species of Micrococcus or Bacillus
 - (iv) None of the above
- (g) Which of the following microorganism spoil poultry in polyethylene bags?

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- (i) Pseudomonas- achromobacter
- (ii) Alcaligenes
- (iii) hetero-fermentative species
- (iv) Catalase negative bacteria.
- (h) Kjeldahl's methods is used for the analysis of which chemical constituent in meat products?
- (I) A biological method of the food preservation is
 - (i) Freezing.
 - (ii) Drying.
 - (iii) Fermentation.
 - (iv) Adding salt.
- (j) What is Swab method?
- (k) Which of these mould in fresh/ refrigerated meat
 - (i) Cladosporium
 - (ii) Aspergillus
 - (iii) Penicillium
 - (iv) Rhizopus
- (l) Which country is the largest meat processor in the world?
- (m) In storage atmospheres of high humidity variety of molds may cause -
 - (i) Superficial fungal spoilage
 - (ii) Bacterial spoilage
 - (iii) Both a and b
 - (iv) None of these
- (n) Salmon is a fish or bird or meat animal?
- (o) Recommended antibiotics in meat preservation
 - (i) Nisin
 - (ii) Chloramphenicol

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- (iii) Chlortetracycline and oxytetracycline
- (iv) All of these
- p) Cod liver oil is rich in which fatty acid?
- q) Black spot in meat are produced mainly by
 - (i) Cladosporium
 - (ii) Thamnidium
 - (iii) Mucor
 - (iv) Rhizopus
- r) Name two major meat processing industries in india.

SECTION-B

Note: Short answer type questions. Attempt any ten parts
10x4=40

- Q.2
- i) What is an abattoir? Explain.
 - ii) Explain different types of cuts of meat.
 - iii) Classify different sausages and explain the steps of production of generic sausages.
 - iv) Discuss different methods of slaughtering used in meat, fish and poultry industry globally.
 - v) How will you calculate shape and size index of egg?
 - vi) Draw labeled diagram of egg and explain it.
 - vii) Explain the cliché "Nothing of the animal goes waste except his last cries".
 - viii) How filtering and stacking of fish is done?
 - ix) What is ante-mortem and post-mortem inspection of animal/ slaughtered animal?
 - x) What do you understand by culmination ,

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