

2019
29 Dec.

ROLL NO-

M.TECH FOOD TECHNOLOGY

II Semester Examination 2019

Course Code- MFTC-201

Course Title- Technology of Meat and Poultry Products

TIME: 3 hours

Max. Marks: 75

Q1. A) Objective Type:

(1*10=10)

- i. The structural unit of collagen is _____.
- ii. The enzyme trypsin splits the myosin molecule at neck region and results in two fractions _____ & _____.
- iii. The distance between two adjacent Z-lines is known as _____ which is the structural and functional unit of myofibril.
- iv. _____ is a mucopolysaccharide which is a very viscous substance found in joints and between connective tissue fibers.
- v. Red spot in meat is caused by
 - a) *Pseudomonas syncyacea*
 - b) *Serratia marcescens*
 - c) *Micrococcus species*
 - d) *Chromobacterium lividium*
- vi. The sarcomere includes:
 - a) Only A band
 - b) Two I bands
 - c) Only I band
 - d) A band and the two half of I bands.
- vii. In the central region of A band there is a slightly dense area which is known as:
 - a) M line
 - b) H zone
 - c) Z line
 - d) pseudo H zone
- viii. Fat of pig is called lard which is soft in nature due to more proportion of:
 - a) unsaturated to saturated fatty acids
 - b) Both of these
 - c) saturated to unsaturated fatty acids
 - d) None of these
- ix. Denatured meat becomes insoluble in aqueous solution and this property affects the structure and characteristics of meat, its appearance and ability to hold or bind water. (True or False)
- x. Actin and myosin are present in the smooth muscles in the same proportion as in skeletal muscle but there is no striation. (True or False)

B) Define the following:

(1*5=5)

- a) Smoking
- b) Water Holding Capacity
- c) Evisceration
- d) Stunning
- e) Myoglobin

Q2. Attempt any three of the following:

(3x5=15)

- a) Define Rigor Mortis? Briefly describe the stages that take place in the process of Rigor Mortis?
- b) Differentiate between DFD and PSE meat.
- c) Describe in detail the different types of methods used for stunning of meat animals?
- d) With the help of a flow sheet explain the steps involved in dressing of poultry?
- e) What is meat tenderization? Enlist the different methods of meat tenderization and describe any one of the method?

Q3. Attempt any two of the following:

(2x7.5=15)

- a) Define curing and its advantages? Explain in detail with the help of flow sheet the process of color change taking place during curing and the curing agents used?
- b) Explain in detail the post mortem changes taking place during conversion of muscle to meat?
- c) With the help of a flow sheet describe in detail the layout features of a modern abattoir?
- d) Discuss in detail the general composition of a red meat animal?

Q4. Write short notes on the following (any three):

(3x5=15)

- (a) Slaughtering techniques.
- (b) Halal meat processing.
- (c) Structure of egg
- (d) Layout features of a poultry processing plant
- (e) Ante Mortem inspection of meat animals

Q5. Attempt any two of the following:

(2x7.5=15)

- a) Discuss in detail the structure of skeletal muscle of meat animal?
- b) Briefly discuss the points to be considered during the packaging of red meat? Write a short note on the techniques used in packaging of red meat?
- c) Enlist the different types of sausages? Give the general processing method used in manufacturing of a sausage?
- d) Discuss in detail the various types of preservation techniques used for preservation of meat and meat products?