Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14FP2029** | **Duration :** | **3hrs** |
| **Sub. Name :** | **TECHNOLOGY OF MEAT, POULTRY AND FISH** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | A butcher notices the following alterations in the beef stored in his meat locker.   1. pH decline and the increase in lactic acid concentration 2. Shortening of Unrestrained muscle 3. Some of the meat exudates large amounts of liquid   Discuss why these phenomena are noticed in the meat and the mechanism behind such alterations (both physical and biochemical). | CO1 | 15 |
| b. | Describe the function of lipid and fat in a meat piece. | CO1 | 5 |
| **(OR)** | | | | |
| 2. |  | Ravi obtains ground meat samples from various butcher shops with varying composition of fat in it. Paraphrase the techniques that he needs to use to check the quality of meat and also select the technique that will help him in grading the meat-based on fat composition. | CO3 | 20 |
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| 3. | a. | Bhanu lal is new to the meat processing industry. He wants to design dressing operations for an animal which has the offal to live animal ratio to be the least. Select the animal and the stages that he needs to include in his industry along with a flow chart. | CO2 | 15 |
| b. | Differentiate between flight zone and point of balance with a suitable diagram. | CO3 | 5 |
| **(OR)** | | | | |
| 4. |  | Ravi owns a meat processing industry and is willing to approach the customers in the Arabian nations. You are asked to describe him the different types of stunning methods that are used in meat processing operations also select the stunning method that he should use and omit for completing his task. | CO3 | 20 |
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| 5. | a. | Discuss the processing factor that affects the tenderization of meat. | CO2 | 10 |
| b. | Rewrite the production procedure for the manufacturing of canned meat products along with a neat flow chart. | CO2 | 10 |
| **(OR)** | | | | |
| 6. | a. | Ron plans to design a process layout for carcass processing of cattle. Suggest the chilling procedures that he can include in his process layout design and the advantages of these processes as compared to others. | CO3 | 6 |
| b. | Define intermediate moisture of foods. Outline the production process of intermediate moisture foods with a neat flow chart. | CO2 | 14 |
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| 7. | a. | Illustrate the nonmeat ingredients and the production process of sausages. | CO1 | 16 |
| b. | Enlist the factors responsible for the spoilage of poultry products. | CO1 | 4 |
| **(OR)** | | | | |
| 8. |  | Ameen runs a Ham manufacturing industry. He wants to design a HACCP procedure for his product using the given flow chart. Help him in designing the process and highlight the three CCP that he needs to monitor strictly in his process.  Image result for Processing steps for cured HAM | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Differentiate between CSW and RSW. Highlight the changes observed during storage of fish in RSW and CSW. | CO3 | 12 |
| b. | Describe the parameters responsible for spoilage of fish and fish-based products. | CO1 | 8 |