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



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

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| **Code :** | **15BT3018** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FOOD AND DAIRY MICROBIOLOGY** | **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. | Enumerate different molecular techniques involved in microbiological examination of foods. | CO1 | 10 |
| b. | Summarize various extrinsic parameters affecting the growth of microorganisms in food. | CO1 | 10 |
| **(OR)** | | | | |
| 2. | a. | Chemical agents used for control of microorganisms in food along with the mode of action - Exemplify. | CO1 | 12 |
| b. | Give a brief account on food spoilage microorganisms. Suggest methods of food preservation from such microorganisms. | CO1 | 8 |
|  |  |  |  |  |
| 3. | a. | Critically analyze the microbes of raw milk and give the methods reducing the contamination of milk. | CO1 | 10 |
| b. | Enlist the beneficial uses of yeast in food production. Explain any one application in detail. | CO1 | 10 |
| **(OR)** | | | | |
| 4. | a. | Classify food poisoning. Examine their correlations with microorganisms. | CO1 | 8 |
| b. | Explain the term ‘Hygeine and Sanitation’. How they are correlated with microorganisms? Explain in context to preservation of food. | CO1 | 12 |
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| 5. | a. | Following a 4th of July picnic lunch of ham, sour pickles, potato salad and cream puffs, a group of students was admitted in hospital with severe gasterointestinal distress. A diagnosis of staphylococcal food poisoning was made. Explain how Staphylococcus multiply in these foods and produce severe abdominal distress. | CO1 | 10 |
| b. | Indicate some possible ways in which food may become contaminated with enteric pathogens. | CO1 | 10 |
| **(OR)** | | | | |
| 6. |  | Discuss the methods of preparation of commercial fermented foods. | CO1 | 20 |
|  |  |  |  |  |
| 7. | a. | Highlight the benefits of HACCP. Explain the steps should be followed to develop a HACCP plan. | CO1 | 15 |
| b. | Outline the methods of homo and heterofermentation of lactic acid bacteria. | CO1 | 5 |
| **(OR)** | | | | |
| 8. |  | Describe the role of organic preservatives, inorganic preservatives and gaseous chemical preservatives for food preservation. | CO1 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Illustrate ‘Hurdle Technology’ for food preservation with neat sketch. | CO1 | 15 |
| b. | State the role and importance of FSSAI in food processing sector. | CO1 | 5 |