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

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **14FP2006** | **Duration :** | **3hrs** |
| **Sub. Name :** | **DAIRY ENGINEERING AND TECHNOLOGY** | **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. | Describe the various reception tests carried out in the dairy industry. | CO1 | 14 |
| b. | List out the different types of milk coolers and write a short note of them. | CO1 | 6 |
| (OR) | | | | |
| 2. | a. | Discuss the physico – chemical properties of milk and its constituents. | CO2 | 10 |
| b. | Summarize the role of enzymes used in dairy industry. | CO2 | 10 |
|  |  |  |  |  |
| 3. |  | Explain the different methods of pasteurization with a neat sketch. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Sketch the bottle and pouch filling machines and describe them in detail. | CO3 | 20 |
|  |  |  |  |  |
| 5. | a. | Paraphase the cheddar cheese manufacturing process in detail. | CO2 | 15 |
| b | Recall the various steps involved in toned milk preparation. | CO1 | 5 |
| (OR) | | | | |
| 6. |  | Demonstrate the process of manufacturing skim milk powder using spray dryer and drum dryer with a neat diagram. | CO3 | 20 |
|  |  |  |  |  |
| 7. |  | Compile the process and equipments involved in ice cream manufacturing. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Discuss the energy usage on different unit operations carried out in dairy industry. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Write a detailed note on the preparation of fermented dairy products. | CO3 | 20 |