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



**End Semester Examination – Nov/Dec - 2017**

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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. | Draw a flow diagram for milk constituents. | CO1 | 15 |
| b. | 1000 kg of double toned milk (DTM) is to be prepared by mixing whole milk, testing 5.5% fat and skim milk testing 0.2% fat. Calculate the amount of whole milk and skim milk required. | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Write a detailed note on application of enzymes in dairy industry. | CO1 | 10 |
| b. | Describe the various types of coolers used in milk chilling stations. | CO2 | 10 |
|  | | | | |
| 3. |  | Give an account on LTLT pasteurization of milk and its types. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Explain the preparation of skim milk powder using spray dryer. | CO2 | 20 |
|  | | | | |
| 5. | a. | Assemble the various steps involved in Cheddar cheese preparation. | CO3 | 15 |
|  | b. | Draw the process flowchart for tonned milk preparation. | CO1 | 5 |
| (OR) | | | | |
| 6. | a. | Criticise the various quality aspects of milk powder. | CO1 | 10 |
|  | b. | Point out the various defects in dairy products. | CO3 | 10 |
|  | | | | |
| 7. | a. | Construct the process of lactose production. | CO3 | 15 |
|  | b. | Categorize the composition and industrial uses of casein. | CO3 | 5 |
| (OR) | | | | |
| 8. | a. | Correlate the role of microorganisms in ice cream preparation. | CO3 | 10 |
|  | b. | Classify how butter is graded and write about different grades of butter. | CO3 | 10 |
|  | | **Compulsory:** |  |  |
| 9. |  | Summarize the various fermented dairy products. | CO3 | 20 |
|  |  |  |  |  |

ALL THE BEST