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## GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016

Date: 23/11/2016

Subject Code:2171403

Subject Name: Milk & Milk Products Technology Time: 10.30 AM to 1.00 PM **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Explain the process of extraction of following flavours: 0.1 07 Vanilla ii) Chocolate **(b)** What do you mean by normal and abnormal milk? State their importance. 07 **Q.2** Define Toned Milk, Describe briefly the importance and technology of preparation of 07 (a) 'Toned Milk'. (b) Why cream is neutralized during butter making? Explain the process of 07 neutralization of cream during preparation of butter. **(b)** Define butter. Discuss the following steps in butter preparation: 07 i) Churning ii) Washing of butter iii) Working 07 0.3 Discuss the important physico-chemical properties of milk. (a) (b) Enlist the different types of cheese and Explain the important steps in 07 preparation of cheddar cheese. OR Explain the various factors affecting the composition and yield of milk. 0.3 07 (b) What is processed cheese? Explain the method of manufacture of processed 07 cheese. **07** 0.4 (a) Write short notes on: i) Market milk industry in India ii) Tests for quality evaluation of milk (b) What is chhana? Discuss the method of preparation of chhana and any one 07 chhana based sweet. OR 0.4 Write short notes on: 07 (a) i) Role of NDDB in dairy development ii) Homogenized milk (b) Enlist the different types of fermented milk and milk products and explain the 07 method of manufacture of shrikhand. Classify the ingredients used in the preparation of ice cream and state the role **Q.5** 07 of non-dairy ingredients involved in ice cream preparation. Write the flow diagram for production of following milk products along with 07 technical detail: i) Skim milk powder ii) Sterilized milk OR (a) What is condensed milk? Explain the process for preparation of condensed 0.5 **07** milk. **(b)** Discuss in detail the 'Freezing' step in ice-cream preparation. **07** 

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