

(Following Paper ID and Roll No. to be filled in your
Answer Books)

Paper ID :

Roll No.

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B.TECH.

Theory Examination (Semester-VI) 2015-16

**DEVELOPMENT OF PROCESSED
PRODUCTS & EQUIPMENTS**

Time : 3 Hours

Max. Marks : 100

**Note: The question paper is divided in to three sections.
Attempt all sections.**

Section-A

1. Attempt all parts.

(2×10=20)

- (a) What do mean by labeling of the food products?
- (b) Define the pasteurization.
- (c) What is Distillation?
- (d) What is kneading?
- (e) What do you mean by Unit operation?

- (f) What do you mean by sterilization of milk?
- (g) Explain the term food freezing.
- (h) What are nutraceuticals?
- (i) Explain the term extraction. Write the different methods used for oil extraction.
- (j) What do you mean by filtration?

2. Attempt any five parts.

(10×5=50)

- (a) Write your comments on: " Food product development trends in India".
- (b) Describe the process of fish and meat technology with detailed process flow chart.
- (c) Discuss CFTRI method of pulses milling operation in detail.
- (d) Discuss mass and energy equation with the help of neat sketch diagram.
- (e) Explain different component and working principle of bucket elevator.

- (f) Discuss various steps of wheat parboiling in detail. Also writes its benefits and limitation.
- (g) Discuss the Centrifugation method of mechanical separation.
- (h) What do you mean by E.M.C.? 500 kg of paddy at 22% moisture content on wet basis is dried to 14% moisture content on dry basis for milling. Calculate the weight of bone dry product and amount of moisture removed in drying.

Attempt any two questions.

(15×2 = 30)

3. (i) Explain the mechanical extraction process of coconut oil with suitable figures.
- (ii) What do you mean by size reduction of products? Discuss in detail about different machinery use for reduction. Explain briefly with recommended parameter.
4. (i) Explain the process of candy manufacturing with the help of flow chart.
- (ii) Define the "pasteurization". Describe the working of HTST pasteurizer with the help of neat and labeled diagram.

5. (i) How does evaporator work? Discuss in detail about single effect and multiple effect evaporator.
- (ii) Skim milk is produced by centrifuging the whole milk (containing 3.5% fat by mass). This skim milk is found to contain 90.5% water, 3.2% protein, 5.1% carbohydrate, 0.4% fat and 0.8% ash. Calculate the composition of whole milk, assuming that fat only was removed to make the skim milk and that there are no losses in processing.

