

Printed Pages: 3

NBT - 031

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

Paper ID : 2289556

Roll No. 1 3 1 4 3 5 4 0 2 3

B.TECH.

Regular Theory Examination, (Odd Sem - VII) 2016-17  
FOOD BIOTECHNOLOGY

Time : 3 Hours

Max. Marks : 100

SECTION - A

Attempt all sections. All sections carries equal  
marks.  $(10 \times 2 = 20)$

Write answer of each section in short.

1. a) What are the indicators of food microbial quality?
- b) Define the term radappertization and radurization.
- c) Name the various microorganisms found in spoiled milk.
- d) What do you understand by the term food adulteration?
- e) What are leavening agents? Give some examples.
- f) Name some antioxidants and curing agents used in food industries.
- g) With the help of suitable diagram show the thermal death time curve.

**NBT - 031**

h) List down the factors affecting the water quality requirement of microorganisms.

i) Name few preservatives used in food packaging industries.

j) Explain the term non-traditional proteins and asperesis process.

**SECTION - B**

Attempt any Three questions from this section.

(3×10=30)

1. Show the effects of ionizing radiations on microorganisms.

2. How processing and preservation of seafood is conducted?

3. Narrate the reactions catalyzed by various sugar compounds.

4. What are mycotoxins? What are the harmful effects of mycotoxins on food?

5. "Food is more than nutrients." Justify the statement.

**SECTION - C**

Attempt all questions from this section. (5×10=50)

1. a) Keeping in mind about milk products. State the properties, composition and effects of heat on milk. What are the strategies for milk processing.

031/12/2016/740

(2)

031/12/2016/740

(3)

b) State the role and classification of lipids. State the types of fatty acids and its physical characteristics.

2. a) What is meat curing and tenderizing? What chemical changes to myoglobin muscles occur during meat processing and curing? Also state types of spoilages to meat products.

b) How sensory evaluation of food quality is done?

3. a) What are preservation techniques and importance of preservatives in food packaging?

b) List down the important microorganisms related to food processing with their characteristic features and importance.

4. Describe Synthesis and production of fermented beverages. Write in detail about the beer production.

5. What are the different components in the food processing & Biotechnology provide novel techniques in this field? Justify the statement.