

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

T3 EXAMINATION- DECEMBER 2017

BTech VII & M.Tech 3rd Semester

COURSE CODE: 14M1WBT331

MAX.MARKS: 35

COURSE NAME: Food Processing and Engineering

MAX. TIME: 2 Hrs

COURSE CREDITS: 3

Note: All questions are compulsory. Carrying of mobile phone and calculator during examinations will be treated as case of unfair means. Marks are indicated in square brackets.

- Q1. Define starter cultures and classify them based on temperature and number giving examples in each case. (1+3)
- Q2. Lactic Acid Bacteria offer added advantages in biopreservation. How? (3)
- Q3. Give an account on the reason why food industries are switching to non-thermal methods of preservation. Describe any one technique in details. (1+2)
- Q4. Discuss the role of nanotechnology in: (6)
- a) Development of biosensors
 - b) Delivery of food ingredients
 - c) Food packaging
- Q5. Explain the losses incurred during post harvest methodology of fruits and vegetables. What are the challenges faced by fruit and vegetable processing industries in India. (2+2)
- Q6. For the application of thermal methods, explain the following: (5)
- a) Thermal death values
 - b) Temperature-Time profiles for pasteurization
- Q7. Write brief notes on: (10)
- a) Kefir grains
 - b) SCFA production in fermentation
 - c) Proteolysis in cheese ripening
 - d) Citrate metabolism
 - (e) Ale and Lager yeasts