

KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2019

Marks Scored:

Level : B. Tech.
Year : IV

Course : BIOT 416
Semester: I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date 05 MAR 2019

SECTION "A"

[20Q. × 0.75 = 15 marks]

1. High intensity pulsed electric field (PEF) belongs to
 0 - 80 kV/cm 50 - 80 kV/cm 20 - 80 kV/cm 20 - 80 kV/cm
2. The two most common sources of high-energy radiation used in the food industry are:
 Cesium-137 and Copper Cobalt-60 and Cesium-137
 Cobalt-60 and Zinc-72 Cobalt-50 and Cesium-113
3. High temperature short time (HTST) pasteurization is also called
 Canned sterilization Batch pasteurization
 Thermization Flash pasteurization
4. Which of the followings is an Acidulant?
 Sulphites Sulphur dioxide Benzoic acid Sugar
5. The temperature of pressure canning is
 100-130 °C 116-145 °C 50-80 °C 116-130 °C
6. The Intrinsic factor of food is
 pH Atmosphere
 Temperature of storage Nutrients
7. Cooling capacity of an air conditioner or refrigerator is equal to
 21,000 Btu 2,000 Btu 12,000 Btu 1500 Btu
8. The pH of low acid food is
 pH > 5.3 pH < 5.3 pH < 7.3 pH = 5.3
9. Intermediate moisture food value of honey is
 0.65 0.75 0.85 0.89
10. Food preservative produced from plant origin is
 Defensin Pleurocidin Cardamom Nitrites
11. Which enzyme is responsible for the browning of fruits?
 Proteases Peroxidase Pectic enzyme Thiaminase
12. The main type of lacquer in canning is
 SR Lacquer AR Lacquer Pectic enzyme Thiaminase

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Level : B. Tech.
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Time : 2 hrs. 30 mins.

05 MAR 2019
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F. M. : 55

SECTION "C"

[11Q. × 5 = 55 marks]

Attempt *ANY ELEVEN* questions. Give short and relevant answers. All the questions carry equal marks.

1. Define Asepsis. Write down the main methods of preservation of food at high temperature.
2. Define food preservation and food processing. Write down the importance of food preservation in food industry.
3. Define High intensity pulsed electric field (PEF) and its importance.
4. What is Post harvest? Describe about post-harvest operation.
5. Define the natural preservatives. List out the natural preservatives with different origin available in Nepalese market.
6. Define food additives. Describe the role of food additives in food processing. List out any five food additives commonly used in processed fruits and vegetable.
7. What is Hurdle technology? Write advantage and disadvantage of hurdle technology. List out physical and physico chemical hurdle.
8. What is canning? Describe the types of canning. How canning preserves food?
9. Define Radappertizatio, Radicidation and Radurization. Describe major sources of irradiation for food preservation.
10. Define shortly, Control atmosphere (CA), Modified atmosphere (MA), Controlled Atmosphere Storage (CAS), Modified Atmosphere Packaging (MAP) and Modified Atmosphere Storage (MAS).
11. What are the traditional fermented foods available in Nepal? As a technologist, how do you preserve and process these foods to commercialize in national and international market?
12. What is blanching? Describe types of blanchers in food industry?
13. What is the principle of preservation of food using low temperature? Describe the methods use in this method.

