



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Technology) 2021 Admission
VI Semester Final Examination – June 2024

Pafe.3236

Emerging Methods of Food Preservation (2+1)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1. A nanometer is..... meters.
2. is also known as “Cold Sterilization”.
3. Papain is an enzyme obtained from.....
4. In the range of sound frequency, ultrasound is situated above kHz.
5. MHz frequency is generally used in domestic microwave ovens.

State True or False

6. Microwave heating refers to the use of sound waves.
7. Ultrasound is an efficient thermal alternative in food preservation.
8. No radioactivity is induced in irradiated foods.
9. In ohmic heating (OH) heat is internally generated due to the electrical conductance of foods.
10. Nisin is an antibiotic produced by *Streptococcus lactis*.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. What is Hurdle Technology?
2. What is the principle of pulsed electric field sterilization of food?
3. Describe oscillating magnetic field sterilization.
4. What are chemical preservatives?
5. What do you mean by Radappertization?
6. Generation and applications of ozone in food industry
7. Pulsed light processing of food

III Answer ANY FIVE of the following

(5x4=20)

1. Discuss direct and indirect effect of ionizing radiation on food.
2. Write a brief note on cold plasma technique of food preservation.
3. Discuss the role of enzymes in food processing and preservation.
4. Explain Radio Frequency heating of food and its applications.
5. Discuss the principles of food preservation.
6. Elaborate the role of ultrasound in food preservation.
7. Explain mechanisms of microwave heating.

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Discuss high pressure processing of foods in detail.
2. Describe the role of Nanotechnology in food processing and packaging.
