



EASTERN UNIVERSITY, SRI LANKA

FINAL EXAMINATION IN AGRICULTURE (500 Series) - 2000/2001

FOOD PROCESSING AND PRESERVATION (ACH 522)

Answer all questions.

Time: 3 Hours

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1. a) Discuss the importance of irradiation as a method of food preservation.
  2. a) Discuss briefly the factors influencing the rate of heat penetration during canning.  
b) Explain why it is necessary to perform heat penetration studies when developing a canned product.  
c) A can weighing 600 g contained 2 spores / g of product before processing. Calculate the minimum time necessary to reduce the survival number below 1% level. Decimal reduction time is 5 minutes. Show all your calculations.
  3. a) Illustrate the processing technology of the following food products:  
i) Mango squash                      ii) Puff pastry  
b) Explain the cause and effects of chilling injury in fruits and vegetables.
  4. Explain the following:  
a) Influence of freezing rate on ice crystal formation and product quality during frozen storage of foods.  
b) Role of organic acids that are used in foods as preservatives.
  5. Write a brief account on each of the following:  
a) Extrusion cooking.  
b) Water activity and food preservation  
c) Modified atmosphere storage of foods.

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