

Uva Wellassa University
Faculty of Animal Science and Export Agriculture

BSc in Export Agriculture

End Semester Examination January/February 2016
Year III Semester II

Advanced Food Science & Food Analysis (EAG 361-2)



Instructions

Answer Four (04) questions only

No. of questions : Five (05)

No. of pages : Two (02)

Total marks allocated : 100 %

Time : Two hours (02 hrs)

Note: Handover the question paper along with the answer sheet.

Essay

Question 01

a. During quality analysis of a commercially available fruit juice beverage, the sample was mixed with Calcium carbonate (CaCO_3) and Hydrochloric acid (HCl). Then the mixture was boiled and the releasing gas was collected using a condenser and it was observed that the releasing gas has the ability of bleaching the colour of Iodine (I_2). Briefly explain the observations with reference to the possible food additive responsible for the above observation.

(15 marks)

b. Results obtained from a determination of moisture content of dehydrated pineapple cubes using oven drying method are given bellow.

Weight of the empty dish = 25.00 g

Weight of the dish with sample before drying = 32.25 g

Weight of the dish with sample after drying = 31.63 g

Calculate the percentage moisture content and the percentage total solids by mass.

(10 marks)

Question 02

a. Fresh mushrooms packed in a flexible packing material displayed at an ordinary sales outlet have following problems. Bloat / expand pack and deposit moisture on the inside walls of the pack. Explain the reasons for these problems and suggest solutions for avoiding such problems.

(15 marks)

b. Explain the importance of batch number of a food product?

(10 marks)

Question 03

a. 'Filling medium plays an essential role during the production of canned foods'. Discuss the statement.

(15 marks)

b. Explain the precautions for the avoidance of *Clostridium botulinum* toxicity in canned foods.

(10 marks)

Question 04

In Sri Lanka, as also in many other developing countries, consumers are not much aware of the health hazards of food adulteration and pay heavily for consuming adulterated food. If consumers are aware of reported outbreaks of food safety issues pertaining to adulteration, it would be a great advantage towards control approaches of food adulteration. Considering all the facts, write an article to a newspaper on 'Food adulteration and associated food safety risks' in order to update consumers on the ways and means of food adulteration.

(25 marks)

Question 05

Write short notes on following topics.

a. Sensory evaluation of food

b. Kjeldhal method

(12.5 x 02 = 25 marks)