



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2010/2011
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE (FOODS, NUTRITION AND DIETETICS)

HFN 409: FOOD PROCESSING, PACKAGING AND STORAGE

DATE: FRIDAY, 26TH NOVEMBER 2010 **TIME:** 11.00 A.M – 1.00 P. M

INSTRUCTIONS: Answer ALL Questions

1. Explain how each of the following processes are used to process food
 - (a) Blanching-----5 Marks
 - (b) Extrusion-----5 Marks
 - (c) Drying -----5 Marks
 - (d) Malting-----5 Marks
2. (a) Explain modified atmosphere packaging of food ----- 5 Marks
 - (b) Differentiate D-values from Z-values.----- 5 Marks
 - (c) What do you understand by the following terms (i) Isopeptide bonds?
-----5 Mark
(ii) Racemisation?
-----5 Mark
3. (a)What do you understand by water activity of food ? -----5 Marks
 - (b) Discuss any two methods by which this can be reduced -----5 Marks
4. (a) What is food irradiation? -----5 Marks
 - (b) How is it done and how does it affect the quality of food?-----5 Marks

- 5 (a) What are humectants ? ----- **3 Marks**
- (b) State how they are used in food processing----- **2 Marks**
- (c) What is the significance of spore forming microorganisms in heat processed foods?
5 Marks