



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2009/2010

SUPPLEMENTARY EXAMINATION FOR THE DEGREE OF MASTER OF
SCIENCE (FOODS AND NUTRITION)

HFN 506: NUTRITIONAL BIOCHEMISTRY

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DATE: FRIDAY, 27TH NOVEMBER 2009

TIME: 9.00 A.M. – 12.00 P.M.

INSTRUCTIONS

Answer ALL Questions.

1. Define and list the essential amino acids. Which amino acids are regarded as semi-indispensable? Explain. (7 marks)
2. Explain why a person who wants to lose weight should not avoid carbohydrates. (4 marks)
3. Explain the difference between saturated and unsaturated fatty acid. Give an example of each. (4 marks)
4. Define trans fatty acids. Why are they not desirable in foods? (5 marks)
5. Describe five functions of lipids in the body. (5 marks)
6. Write an equation summarizing glycolysis and gluconeogenesis pathways. (5 marks)
8. Explain oxidative stress, and the role of ascorbic acid (vitamin C) and tocopherols (vitamin E) in defenses against oxidative stress. (5 marks)
9. Choose any topic in nutrition that is controversial. Discuss facts for and against and make your conclusion. (10 marks)
10. Briefly explain two main factors that determine protein quality. (10 marks)