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University Examinations 2013/2014

SECOND YEAR, SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR
OF SCIENCE IN FOOD SCIENCE

AFS 2209 FOOD CHEMISTRY II

DATE: DECEMBER 2013

TIME: 2 HOURS

INSTRUCTIONS: Answer questions *one* and any other *two* questions.

QUESTION ONE (30 MARKS)

- Distinguish between enzyme co-factors and coenzyme (4 Marks)
- Colorants are any chemical compound that impart colour, Name and briefly explain the two major colorants. (4 Marks)
- Distinguish clearly between non Newtonian and Newtonian materials giving three examples in each category. (6 Marks)
- There are different kinds of food emulsions. Name and explain briefly the kinds (6 Marks)
- Acceptability of a given colour to be used in a food product is influenced by a number of factors. Discuss. (10 marks)

QUESTION TWO (20 MARKS)

- Describe the process of pheophytinization in green vegetables (8 Marks)
- Distinguish between chlorophyll a and chlorophyll b. (4 Marks)
- Briefly discuss the characteristics of an ideal compound to be used as an antioxidant (8 Marks)

QUESTION THREE (20 MARKS)

Discuss five major factors that influence enzymatic reactions. (20 Marks)

QUESTION FOUR (20 MARKS)

The chemical composition of a food is largely responsible for its taste. Discuss this statement in regard to:

- i. Saltiness
- ii. Sourness
- iii. Bitterness
- iv. Sweetness

QUESTION FIVE (20 MARKS)

- a) Discuss the purposes of food additives in foods. (14 Marks)
- b) Distinguish between certified and non certified colours. (6 Marks)