

**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2018/2019**

**YEAR 2 SPECIAL/SUPPLEMENTARY EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND TECHNOLOGY**

**AFS 2209: FOOD CHEMISTRY II**

**DATE: JUNE 2019 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER ALL QUESTION IN SECTION A AND TWO QUESTIONS IN SECTION B. SECTION A CARRIES 30 MARKS AND SECTION B 40 MARKS

**SECTION A**

1. Discuss use of certified colors in food products (6 marks)
2. Discuss the reactions that take place in meat pigments during curing with nitrites

(6 marks)

1. Discuss the essential aspects of process-induced toxicants in food (6 marks)
2. Discuss the stability of anthocyanins during thermal processing of fruits and vegetables (6 marks)
3. Discuss the formation and stability of metallo complexes of chlorophyll derivatives

(6 marks)

1. Discuss the cyanogenic glycosides commonly found in plants, the basis of their toxicity and the mechanisms for the release of the toxicanty (20 marks)
2. Discuss the international regulatory aspects of food colorants
3. Discuss the application of antimicrobial agents as food additives (20 marks)