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**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**FOURTH YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SECURITY**

**2016/2017 ACADEMIC YEAR**

**REGULAR**

**COURSE CODE: AFB 3424**

**COURSE TITLE: Food Packaging, Storage and Distribution**

**EXAM VENUE: STREAM: DIP. (Food Security)**

**DATE: EXAM SESSION:**

**TIME: 2 HOURS**

**Instructions:**

1. **Answer ALL questions in section A and ANY other 2 Questions in section B.**
2. **Candidates are advised not to write on question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

 **SECTION A: 30 MARKS**

 **Answer all questions in this section**

1. a) Highlight the constraints that producers face while distributing food in rural Kenya (10 marks)

 b) Explain the five market place concepts highlighting the need to understand customer needs and

 wants and the markets within which they operate. (10 marks)

 c) Explain the hygienic guidelines that should be used while handling food items (10 marks)

 **SECTION B: 40 MARKS**

 **Answer only TWO questions in this section**

**2.** a) What roles do the members of the marketing channel perform (10 marks)

 b) Explain the laws related to food packaging (10 marks)

3. a) What conditions are necessary for hygienic storage of food (10 marks)

 b) Food contamination refers to the presence in food of harmful chemicals and microorganisms

 which can cause consumer illness. Explain the sources of food contamination (10 marks)

4. a) Explain the functions of food packaging (10 marks)

 b) Explain five factors that food producers would consider when selecting a means of transport.

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5. Explain the various types of food packaging materials highlighting their environmental considerations

 (20 marks)