



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

**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**THIRD YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR  
THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL  
EXTENSION EDUCATION**

**2016/2017 ACADEMIC YEAR**

**REGULAR**

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**COURSE CODE: ECT 3332**

**COURSE TITLE: SUBJECT METHODS OF TEACHING BIOLOGY**

**EXAM VENUE:**

**STREAM: BSc. (Agricultural Extension  
Education)**

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

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**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 from this Section.**

**QUESTION 1**

- a) Explain any five objectives of teaching biology in secondary schools.(10 marks)
- b) Explain any four scientific process skills used in teaching biology (4 marks)
- c) As a biology teacher, explain how you can ensure that the learning needs of all students are taken into consideration (6 marks)
- d) Explain how a biology teacher can use project work as a teaching strategy (4 marks)
- e) As a biology teacher ,identify and explain any three necessary attitudes to be developed in learners when teaching biology (6marks)

**SECTION B [40 MARKS]**

**Answer ANY TWO questions from this Section.**

**QUESTION TWO**

- a) State any five laboratory rules to be observed by learners during any activity in the laboratory (5marks)
- b) Explain how you would use field work in teaching biology (10 marks)
- c) Explain the steps involved in teaching a practical activity in biology (5marks)

**QUESTION THREE**

- a) Explain how a teacher should use environment as a teaching resource to reinforce teaching of biology in secondary schools (8 marks)
- b) Explain the following skills by giving relevant examples
  - i. manipulative skill (4marks)
  - ii. observation skill (4marks)
  - iii. drawing skill (4marks)

**QUESTION FOUR**

Using an appropriate topic of your choice in biology plan a forty minutes lesson plan indicating relevant teaching and learning aids. (20 marks)

**QUESTION FIVE**

Name and explain any five types of questions tested in biology practical examination. (20 marks)