



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

UNIVERSITY EXAMINATIONS 2012/2013

**3RD YEAR 1ST SEMESTER EXAMINATION FOR THE DEGREE
OF BACHELOR OF EDUCATION (SCIENCE) WITH IT**

MAIN

COURSE CODE: ECT 332

COURSE TITLE: SPECIAL METHODS FOR TEACHING BIOLOGY

DATE: 2.5.2013 TIME: 9.00-11.00AM

DURATION: 2 HOURS

INSTRUCTIONS

- 1. This paper consists of 5 Questions.**
- 2. Answer Question 1 (Compulsory) and any other 2 questions**
- 3. Write your answers on the answer booklet provided**

1. (a) Compare and contrast the dynamic and the static view points of science education (6mks)
(b) Define the term Ecology, habitat, biomass, ecosystem, carrying capacity and ecological niche (5mks)
(c) Identify the a biotic (physical) and biotic (biological) factors in a given ecosystem. Based on this information. (1mks)
 - i. Construct according to Bondo University format and write a two week scheme of work to cover all the content areas and skills mentioned (10mks)
 - ii. construct a one hour evaluation instruments to test knowledge of content and higher order skills, in two sections: Section I- Short answer questions and Section II – Essay questions (8mks)

2. (a) Using an example, describe a teaching method you could use to practically show learners how to use a science equipment property (6mks)
(b) What three considerations would you bear in mind in planning for this method? (6mks)
(c) Write a one period lesson plan to use (8mks)

3. Explain the ASEI / PDSI movement of teaching and learning of science (20 mks)

4. (a) Explain the meaning of teaching and learning resources citing examples (6mks)
(b) Explain factors a teachers has to put in mind during selection of teaching and learning resources (6mks)
(c) State and explain characteristics of a good chart to be used in a biology lesson (8mks)

5. Explain challenges biology teachers encounter during teaching and learning of the subject (20mks)