



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

**THIRD YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF EDUCATION WITH INFORMATION
TECHNOLOGY**

MAIN CAMPUS

ECT 332: SPECIAL METHODS IN BIOLOGY

Date: 11th January, 2016

Time: 2.30 - 4.30 pm

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.

QUESTION ONE

- a) State **THREE** major areas of a modern biology laboratory (3marks)
- b) Explain **THREE** positive applications of biological knowledge, for each application, mention the biological concepts used. (6marks)
- c) Explain any **THREE** science process skills (6marks)
- d) Contrast the static and dynamic views of science (4 marks)
- e) One of the objectives of biology education curriculum is the development of positive attitudes towards biology. Explain **FOUR** ways in which this objective can be achieved. (4 marks)
- f) State **TWO** safety precautions for using a microscope (2 marks)
- g) State **FIVE** goals of science Education (5 marks)

QUESTION TWO

- a) The demonstration method of teaching is not highly recommended for extensive use in teaching biology. However it can be used in certain circumstances. Explain **FIVE** circumstances where the method is justifiable. (10 marks)
- b) Discuss **FIVE** challenges of using this method to teach biology (10 marks)

QUESTION THREE

- a) Discuss the importance of a scheme of work in biology teaching.(10marks)
- b) From the topic of GASEOUS EXCHANGE, construct a two-week scheme of work (10 marks)

QUESTION FOUR

- a) Discuss the factors that have militated against successful implementation of curriculum innovations in biology in the last four decades in Kenya. (10 marks)
- b) Explain the main characteristics of the biological science curriculum study (10 marks)

QUESTION FIVE

- a) Biology teaching is faced with many challenges. As a biology teacher discuss some of the challenges you are likely to face (10 marks)
- b) Explain **FIVE** factors you would consider when constructing biology tests. (10 marks)