



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF EDUCATION

DEPARTMENT OF COMMUNICATION TECHNOLOGY

THIRD YEAR APRIL SESSION EXAMINATION FOR BACHELOR OF EDUCATION

ECT304: TEACHING METHODS IN BIOLOGY

DATE: SCHOOL BASED

TIME:

INSTRUCTIONS

Answer Question One and Any Other Two Questions

1.
 - a) Explain any **two** reasons why Biology is important to the survival of mankind. (4 marks)
 - b) Describe how the **three** phases of a learning cycle can be applied to the teaching of **Adaptation of terrestrial plants**. (12 marks)
 - c) Prepare an 80minute Lesson Plan on the topic **Food Tests**. (14 marks)
2. Outline the use of the VEE-Diagram in planning for a Biology Practical on **Bones of the vertebral column**. (20 marks)
3.
 - a) Explain how Biology has contributed to Medical Science. (8 marks)
 - b) Choose a topic from the Biology Syllabus for Secondary Schools and describe how you would teach it using metacognitive tools. (12 marks)
4. Explain the significance of each of the following components of a Lesson Plan:
 - i The Objectives.
 - ii The Timing of each step.
 - iii The Learning Activities.

- iv The Teaching Resources.
- v The Remarks. (20 marks)
- 5. Write a brief essay on **one** of the following topics: (20 marks)
 - i Biology and the survival of mankind.
 - ii Women Scientists in Biology.
 - iii The use of ICT in teaching Biology.
 - iv The Skills tested in Biology Practical.