



# MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, ECE & SNE

SECOND YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN  
EDUCATION

ECT0209: TEACHING METHODS-BIOLOGY

DATE:

TIME:

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## INSTRUCTIONS

**Answer Question One and Any Other Two Questions**

1. a) Explain **two ways** of:
  - i. Introducing the topic: **The Structure of a flower.**
  - ii. Concluding a lesson on the topic: **Food Chains and Food Webs**(8 marks)
- b) Explain the use of the Vee-Diagram as a Metacognitive tool in Biology Teaching: You may make reference to a named practical. (12 marks)
- c) Discuss any **five** process-skills of Science promoted through Biology. (10 marks)
2. Prepare a 40 minute Lesson Plan for teaching a lesson on **Cell Organelles.** (20 marks)
3. Describe how you would teach a named topic in Biology with emphasis on the **three phases of a learning cycle.** (10 marks)
4. Explain the significance of each of the following methods of teaching Biology:
  - i The project method.
  - ii The discussion method.
  - iii The Teacher Demonstration.
  - iv The Field Trip. (20 marks)
5. Write briefly about the skills tested in the following areas of Biology Practical:

- i. Biological Diagrams.
- ii. Support and Movement.
- iii. Construction of the Dichotomous Key. (20 marks)