



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## UNIVERSITY EXAMINATIONS 2023/2024

THIRD YEAR SECOND SEMESTER EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE  
IN EDUCATION SCIENCE, BACHELOR OF SCIENCE AGRICULTURAL EDUCATION AND  
EXTENSION

### ECT 3351: BIOLOGY SUBJECT METHODS

**DATE: APRIL 2024**

**TIME: 2 HOURS**

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**INSTRUCTIONS: Answer Question ONE and any other TWO questions.**

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#### QUESTION ONE (30 MARKS)

- a) Distinguish between expository and heuristic teaching approaches (4marks)
- b) State three reasons for preparing lesson plan in Biology (3marks)
- c) Explain the steps followed in selecting Biology textbooks (5marks)
- d) Describe the professional documents used in the planning for instruction in the teaching of Biology (4marks)
- e) Briefly describe the significance of biology teaching and learning resources to teachers and students (4marks)
- f) State two advantages of class practicals over project in Biology. Give an example in each case. (4marks)
- g) Explain three advantages of essays test as a classroom examination in Biology (6marks)

#### QUESTION TWO(20MARKS)

- a) Analyze the biohazard which would otherwise interfere with the learners activities in a biology laboratory (10marks)
- b) Explain the importance of preparing schemes of work in Biology (10marks)



**QUESTION THREE(20MARKS)**

- a) Describe how you would plan a field trip to the national museum (10marks)
- b) Describe the steps you would follow when preparing a lesson plan (10marks)

**QUESTION FOUR(20MARKS)**

- a) Outline the merits and demerits essay questions in Biology examinations (10marks).
- b) Expound on the merits of the "project methods" in teaching Biology (10marks).

**QUESTION FIVE(20MARKS)**

- Prepare a scheme of work for two weeks in the topic the cell taught in form one (20marks)

