



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2023/2024

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE POST GRADUATE
DIPLOMA IN EDUCATION**

ECG 4152: METHODS OF TEACHING PHYSICS

DATE: DECEMBER 2023

TIME: 2 HOURS

INSTRUCTIONS: *Answer question **one** and any other **three** questions*

QUESTION ONE (24 MARKS)

- a) What are five important sources of knowledge to everyday teaching of physics.
(5 marks)
- b) Prepare a practical lesson plan to teach verification of flow of current in a simple circuit.
The lesson commences at 8.00 am, Monday, 15th January, 2024. (9 marks)
- c) Explain five steps of teaching learners to engage into science and engineering fair activities (5marks)
- d) Explain the importance of mentoring learning to engage into productive school activities (7 marks)

QUESTION TWO (12 MARKS)

- a) Discuss the qualities of a good physics practical examination. (5 marks)
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- b) Describe five reasons you would advocate to teachers to teach learners through hands-on techniques? (5 marks)

QUESTION THREE (12 MARKS)

- a) Discuss four ways of enhancing teaching of physics in day secondary school during the information technology era. (8 marks)
- b) Differentiate between a theory and a theorem (4 marks)

QUESTION Four (12 MARKS)

- a) Describe two ways a physics teacher uses a surrounding environment in teaching and learning of physics (4 marks)
- b) Explain four ways of minimizing challenges facing teaching of physics in competency based curriculum (8 marks)

QUESTION FIVE (12 MARKS)

- a) Discuss five ways of creating scientific knowledge from the surrounding environment. (5 marks)
- b) Explain seven ways of boosting learners' morale in learning of physics. (3 marks)



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