



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## UNIVERSITY EXAMINATIONS 2024/2025

FIRST YEAR, SECOND SEMESTER EXAMINATION FOR POST GRADUATE DIPLOMA OF  
EDUCATION

### ECG 4170: METHODS OF TEACHING TECHNICAL EDUCATION

DATE: JANUARY 2025

TIME: 3 HOURS

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**INSTRUCTIONS:** *Answer Question ONE and any other THREE Questions.*

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#### QUESTION ONE (24 MARKS)

- a) Explain the following terms as applied in Competency Based Education and Training (CBET).
  - i) Occupational Standards (OS)
  - ii) Microteaching (2 Marks)
- b) With suitable examples from your area of specialization, demonstrate how a trainer can apply the following approaches in the teaching of technical subjects. (4 Marks)
  - i) Problem-Based Learning
  - ii) Inquiry-Based Learning (4 Marks)
- c) Formative assessment is a key component of Competency Based Education. Discuss three ways of conducting formative assessment during a technical lesson. (3 Marks)
- d) Explain three benefits of micro-teaching to a teacher trainee. (3 Marks)
- e) Explain three reasons why a record of work covered is important for a technical class. (3 Marks)

- f) You have been assigned to teach a lesson at XYZ Technical Training Institution. From your area of specialization, prepare a 60 minutes lesson plan for a lesson to be taught on Wednesday starting at 9.30 a.m. (9 Marks)

**QUESTION TWO - (12 MARKS)**

- a) Discuss four key competencies that must be included in a Competency Based Education and Training (CBET) scheme of work. (4 Marks)
- b) Discuss any four challenges facing the implementation of Competency Based Education and propose the strategies for overcoming each of them. (8 Marks)

**QUESTION THREE - (12 MARKS)**

- a) Instructional materials are essential tools for an effective technical lesson. Discuss any three factors to consider when selecting instructional materials for a practical lesson. (3 Marks)
- b) Explain any three roles of a trainer during a practical lesson conducted in a workshop. (3 Marks)
- c) Discuss three components of a Company Based Assessment tool. (6 Marks)

**QUESTION FOUR - (12 MARKS)**

- a) Industrial collaboration is a key strategy for bridging the skills gap during training. Discuss four strategies for building effective collaborations between the industry and technical training institutions. (8 Marks)
- b) Describe the steps that should be followed by a trainer when preparing the workshop for a practical lesson before the start of the session. (4 Marks)

**QUESTION FIVE - (12 MARKS)**

- a) Discuss the major processes of generating scientific knowledge in technology by both trainers and trainees. (6 Marks)
- b) Discuss three reasons why technical trainer should use a curriculum when preparing for a technical lesson. (6 Marks)