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**University Examinations 2023/2024**

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

**ECG 4153: METHODS OF TEACHING CHEMISTRY**

**DATE: DECEMBER 2023**

**TIME: 2 HOURS**

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

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**QUESTION ONE (24 MARKS)**

- Discuss three critical purposes that chemistry fulfils in the society. Give relevant and specific examples. (6 marks)
- Identify and discuss three objectives of the Teacher Education program and especially to a chemistry teacher-trainee (6 marks)
- As a country, Kenya has outlined eight national goals of education. Two of these are to *promote sound moral and religious values* and to *promote social equality and responsibility*. As a chemistry teacher, how would you contribute towards their achievement. (6 marks)
- Discuss three aims of Competence Based Education. Be sure to give examples. (6 marks)



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

### QUESTION TWO (12 MARKS)

- Discuss any 2 limitations of objective tests. (4 marks)
- Explain 4 circumstances in which demonstration is a suitable teaching method. (4 marks)
- Discuss any 2 physical resources in the teaching and learning of chemistry. (4 marks)

### QUESTION THREE (12 MARKS)

- As a teacher, which two strategies would you use to change learners' negative attitude towards chemistry as a subject (4 marks)
- Explain any 2 steps you would take as a teacher to minimize hazards in a high school chemistry laboratory. (4 marks)
- Chemistry as a science can be viewed as either static or dynamic. Discuss (4 marks)

### QUESTION FOUR (12 MARKS)

- Explain 4 reasons why a chemistry teacher should develop schemes of work. (4 marks)
- The use of projects is critical to the teaching of chemistry because it cultivates many important skills and abilities in the learner. Validate this statement. (4 marks)
- As a high school chemistry teacher, how would you prepare your students for a long educational excursion? (4 marks)

### QUESTION FIVE (12 MARKS)

Molarity is a topic in the chemistry that many students often find challenging.

- Discuss two reasons why this is the case? (2 marks)
- As a chemistry teacher, what strategies would you use to help your students out of this difficulty (2 marks)
- Develop a lesson plan to teach any part of the topic to your students (8 marks)

