



ALUPE UNIVERSITY

**OFFICE OF THE DEPUTY VICE CHANCELLOR
ACADEMICS, RESEARCH AND STUDENTS AFFAIRS**

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

**THIRD YEAR FIRST SEMESTER REGULAR MAIN
EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF
EDUCATION SCIENCE**

COURSE CODE: CIM 322

COURSE TITLE: CHEMISTRY EDUCATION II

DATE: 20TH DECEMBER, 2022

TIME: 9AM – 12NOON

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

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CIM 322: CHEMISTRY EDUCATION II

STREAM: BED (Science)

DURATION: 3 Hours

INSTRUCTIONS TO CANDIDATES

- i. Answer Question **ONE** and any other **TWO** questions
- ii. Do not write on the question paper

Question One.

- a) Outline **TWO** features of formative assessment in the teaching and learning of chemistry. (2 Marks)
- b) Explain **FOUR** benefits of filling chemistry records of work covered. (4 Marks)
- c) Outline **FOUR** reasons why it is important to develop an item analysis when developing a chemistry examination. (4 Marks)
- d) Explain why lesson planning is important for a Chemistry teacher. (4 marks)
- e) State any **TWO** properties of each of the following phases of a lesson plan
 - i. Introduction
 - ii. Lesson development
 - iii. Conclusion. (6 Marks)
- f) Explain the steps that a Chemistry teacher can follow to prepare a scheme of work. (10 Marks)

Question Two.

- a) Explain **FIVE** factors a teacher should consider when writing a chemistry scheme of work. (10 Marks).
- b) Discuss the challenges that a chemistry teacher may encounter while carrying out the following activities. (10 Marks)
 - i. Expository laboratory work.
 - ii. Project work.

Question Three.

- a) With specific examples from chemistry teaching, explain five different ways in which a teacher can motivate learners during the learning of chemistry. (10 marks)

- b) Explain **FIVE** criteria which can guide a chemistry teacher in wise selection of textbooks
(10 marks)

Question Four.

- a) Discuss **FOUR** levels of inquiry-based learning in Chemistry instruction.
(12 Marks)
- b) Describe briefly the general objectives of teaching Chemistry in Kenyan secondary schools.
(8 Marks)

Question Five.

- a) Using examples, explain what you understand by the terms; expository and heuristic methods of chemistry instruction.
(10 marks)
- b) Explain **FIVE** conditions citing relevant examples that would make a teacher elect to use expository methods of instruction when teaching chemistry.
(10 Marks)
