

UNIVERSITY EXAMINATIONS  
FACULTY OF SCIENCE  
DEPARTMENT OF NATURAL SCIENCE  
END OF SEMESTER FINAL ASSESMENT  
SEMESTER 2, 2022/2023

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COURSE: **BACHELOR OF SCIENCE WITH EDUCATION**  
YEAR: **TWO**  
EXAM: **CHEMISTRY TEACHING METHODS**  
CODE: **CHEM 2**  
SEMESTER: **II**  
DATE: **MAY 15, 2023**  
TIME: **9:30AM – 12:30PM**  
DURATION: **3 HOURS**

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**INSTRUCTIONS**

- This paper consists of seven questions.
  - Attempt any **Five (5)** Questions
  - Begin each question on a fresh sheet of paper.
  - All questions carry equal marks.
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### Question 1

- (a) Briefly explain the following terms used in the newly implemented competence based curriculum (CBC) in Uganda
- (i) Key learning outcomes
  - (ii) Values
  - (iii) Generic skills
  - (iv) Cross cutting issues
  - (v) Competency
- (b) Design and present a layout for a lesson plan used in teaching competence based curriculum (8 marks)

### Question 2

- (a) What is a scientific method of teaching? (2 marks)
- (b) Identify factors which discourage learners from pursuing Chemistry subject (8 marks)
- (c) Suggest how computers, ICT and educational technology are useful in teaching chemistry. (10 marks)

### Question 3

- (a) Discuss the issues and considerations followed in designing and constructing a chemistry laboratory (8 marks)
- (b) Explain why chemistry laboratory is crucial in the teaching-learning of chemistry as a subject (7 marks)
- (c) Explain how 2M Sulphuric acid is prepared just enough for 50 students each requiring  $100\text{ cm}^3$  to do a volumetric analysis practical. Consider the available stock acid solution to be 96% w/v, Molar mass = 98g and density  $1.49\text{ g/cm}^3$ . (5 marks)

### Question 4

- (a) What is meant by the term "test"? (2 marks)
- (b) Explain different types of tests that can be administered to learners (10 marks)

- (c) What a teacher should consider while setting a test (8 marks)

**Question 5**

- (a) What is meant by the term micro teaching ? (2marks)
- (b) State the characteristics of microteaching (8marks)
- (c) Explain how the following skills are developed during microteaching
- (i) Explanation (5 marks)
  - (ii) Stimulus variation (5 marks)

**Question 6**

- (a) Explain the different types of questions asked by the chemistry teacher (6 marks)
- (b) State and explain six common mistakes made by teachers when questioning learners (6 marks)
- (c) Name five ways of managing of managing pupils questions (5 marks)
- (d) State three importance of a good questioning technique (3 marks)

**Question 7**

- (a) Explain what is meant by demonstration method (2 marks)
- (b) State six factors to consider when carrying out demonstration lesson to the learners (6 marks)
- (c) Explain the advantages of using a demonstration technique (7 marks)
- (d) Identify the categories of learners who may not benefit from a demonstration method (5 marks)

**END**