

UNIVERSITY OF SWAZILAND



FACULTY OF EDUCATION
DEPARTMENT OF CURRICULUM & TEACHING
EXAMINATION QUESTION PAPER
MAY 2017.

TITLE OF PAPER: ADVANCED CURRICULUM STUDIES CHEMISTRY II

COURSE CODE: CTE 616

STUDENTS: M. Ed. Curriculum & Teaching.

TIME ALLOWED: Three (3) Hours

INSTRUCTIONS: 1. There are five questions in this paper.

2. Answer any four questions

3. Each question has a total of 25marks.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED
BY THE INVIGILATOR TO DO SO.

QUESTION 1

Magnusson , Krajck & Borko (1997) conceptualized pedagogical content knowledge (PCK) for science teaching as consisting of five components.

- a. Identify these five components (5marks)
- b. Use specific examples to describe how each of these five components will impact on a chemistry teachers activities in the classroom (20marks)

TOTAL FOR QUESTION 1 = 25MARKS.

QUESTION 2.

Meaningful Conceptual learning should be a central goal of science teaching (Roth, 1985).

- a. Define Meaningful Conceptual Understanding (MCU) from the perception of the scientist and the teacher. (5marks)
- b. Use a specific topic(s) to analyze the difficulties students encounter in achieving MCU in chemistry classrooms. (10marks)
- c. Summarize what you will do to ensure MCU in your chemistry lessons. (10marks)

TOTAL FOR QUESTION 2 = 25MARKS.

QUESTION 3

“The central message of Metacognition is that students can enhance their learning by becoming aware of their own thinking as they read, write and solve problems in school. (Paris & Winograd, 1997).” Discuss four approaches you will use to enhance your chemistry students’ understanding of their own thinking. (25marks)

TOTAL FOR QUESTION 3 = 25MARKS.

QUESTION 4

- a. Describe the special features that define the Problem Based Learning (PBL) model of instruction. (10marks)
- b. Show how you will plan and use PBL to teach a chosen topic in SGCSE chemistry curriculum. (15marks)

TOTAL FOR QUESTION 4 = 25MARKS.

QUESTION 5

- a. Distinguish between Traditional, Performance and Authentic assessments. (6mks)
- b. Critically examine the effect of:
 - i. Grading
 - ii. Testing and feedback
 - iii. Standardized testingon students' motivation and learning. (9marks)
- c. Discuss how you would apply the four principles proposed by Gronlund (2005) to design an assessment system in your chemistry class. (12marks)

TOTAL FOR QUESTION 5 = 25MARKS.

END OF EXAMINATION!!!