

**UNIVERSITY OF SWAZILAND**

**FACULTY OF EDUCATION**

**MAIN EXAMINATION PAPER 2007**

**B. Ed. III AND PGCE F/T**

**TITLE OF PAPER** : Curriculum Studies in Chemistry

**COURSE NUMBER** : EDC 379

**TIME ALLOWED** : Three (3) hours

**INSTRUCTIONS** :

1. This paper contains five questions
2. Question 1 is **COMPULSORY**. You may then choose **ANY THREE** questions from questions 2,3, 4, 5
3. Each question is worth 25 marks
4. Any piece of material or work which is not intended for marking purposes should be clearly **CROSSED OUT**
5. Ensure that responses to questions are **NUMBERED CORRECTLY**

**THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BE GRANTED BY THE INVIGILATOR**

**Question 1 Compulsory.**

Sample situations from the practices of Teacher A and Teacher B are outlined in the following table:

<b>Situation</b>	<b>Teacher A</b>	<b>Teacher B</b>
1. Using Form 1 textbook, 'Water water everywhere'	Pupils read paragraphs aloud, in turn.	Pupils discuss water conservation ideas, water bill reading and costing.
2. "Sir, does water in a dam boil before evaporation?"	'Eh eh, heat from the sun and the moon causes evaporation to happen at all times'	'Evaporation takes place at all temperatures at all times of the day'
3. Perfume sprayed in one corner of classroom	'Soon you will see the effect of diffusion of the smell'	'In what ways can perfume travel to our noses?'

For each situation, make a critical comparison of the practices of teachers A and B. [25]

**Question 2**

In the past, audio visual resources such as slides, films, overhead projector etc. were the main technological resources. Nowadays the computer has replaced other technological resources. Discuss the potential of Information Technology in teaching chemistry and its advantage over the other resources. [25]

**Question 3**

... STS is teaching science through human experience ... (Yager 1972). What do you understand by this statement? [25]

**Question 4**

The quote below, from the Journal of College Science Teaching highlights two extremes of teachers' approaches to integrating the nature of science into their lessons.

*Science teachers generally agree that the first few meetings of a science class are crucial in setting the tone for the entire term, and sometimes for all future science courses for those students. Unfortunately, it is very common, especially with less experienced teachers, to trend toward one or the other of two extremes in introducing the subject. At one extreme, there is the presentation of introductory definitions, terminology, and taxonomy of the particular scientific discipline, coupled with a brief historical survey of the field. With this method, students are encouraged to view science as a collection of facts to memorize without any active participation by them in scientific exploration. At the other extreme, there is a demonstration or classroom activity designed to excite students' interest and encourage their input in the class, often with little or no framework for beginning a scientific study. This encourages students to view science as a kind of recreation, and to think of themselves as dilettantes (enthusiasts) playing with science instead of novices beginning a great exploration.*

Journal of College Science Teaching Vol. 36 No. 1 September 2006

Discuss the two approaches in the context of your experience in Swaziland. [25]

**Question 5**

Discuss the role of English language in science concept development for Swazi children [25]