

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER May 2009: BED III PRIMARY

COURSE NUMBER: PEC 376/377

COURSE NAME: CURRICULUM STUDIES: Mathematics and Science

TIME ALLOWED: 3 HOURS

- INSTRUCTIONS:**
1. THIS PAPER HAS TWO SECTIONS.
  2. ANSWER ANY TWO QUESTIONS FROM SECTION A AND ANY TWO QUESTIONS FROM SECTION B.
  3. DOCUMENTS REFERRED TO IN SOME OF THE QUESTIONS ARE ATTACHED. IF YOU CAN'T FIND THEM ASK FOR THEM.
  4. ANY PIECE OF MATERIAL WHICH IS NOT FOR MARKING PURPOSES MUST BE CROSSED OUT CLEARLY.

**SPECIAL REQUIREMENTS:** NCC BOOKS

**THIS PAPER MUST NOT BE OPENED UNTIL PERMISSION IS GIVEN BY THE INVIGILATOR**

**SECTION A Mathematics**

Answer any two questions from this section.

**Question 1**

- a. Compare the humanist view of motivation to that of the behaviourist view. (10)
- b. Suggest how you would motivate learners in the following class situations. (15)
  - i. a semi rural township class in a rowdy crime infested location where schooling is not a priority.
  - ii. A drought stricken rural school where half to learner population come to school hungry and sick with no parental support.
  - iii. An affluent location where children have everything and see no need to learn anything.

**Question 2**

... Teaching is communication ...

Discuss this statement from mathematics teaching point of view. (25)

**Question 3**

Produce a balanced examination paper for Grade VI mathematics from two units of the NCC material. The paper should represent two section to correspond to Paper I and Paper II.

**Question 4**

- a. Discuss the role of electronic resources in a classroom. (15)
- b. Discuss human resources and their implications in the classroom. (10)

**SECTION B Science**

Answer any **two** questions from this section on a separate answer sheet.

**Question 5**

The local news papers carry stories, nearly every week, of cases of people who are caught with dagga.

- a. Using your knowledge of STS, discuss this form of drug abuse specifying the role and implication in science education in the Swaziland. (15)
- b. What is your opinion about the implementation of STS education in Swaziland. (10)

**Question 6**

It is important for teachers to (try to) understand where the child is going wrong and how the child got there, so that the teacher can correct misconceptions and so that he can choose a strategy that might help the child. (Source: unknown)

- a. What is your understanding of misconceptions in science? (5)
- b. Using examples from any topic, show how misconceptions in science may be formed and how they should be dealt with. (10)
- c. Outline the process of concept development in learners. (10)

**Question 7**

During a post observation interview with the student teacher during one teaching practice supervision visit, this is what she said

'children from this school do not understand, I sometimes have to switch to SiSwati, they just do not understand. Maybe it is because they do not have the resources ...'

- a. Discuss and explain the problem that this student teacher experienced. (15)
- b. Present an argument for or against the use of mother tongue in teaching science. (10)

**Question 8**

Study the scheme of work for one term from a Grade VII science teacher below.

<b>Topic</b>	<b>Sub topic</b>	<b>completion date</b>
<b>Life science</b>	Vertebrates	
	Invertebrates	
	Seeds	
	Leaves	
	Roots	
	Water	
	Response	
<b>Physical science</b>	Area	
	Volume	
	Electricity	
	Magnets	
	Acids and bases	
<b>Earth science</b>	The sky	
	The earth	
	The sun and moon	
	Earth movement	
	Weather	
<b>Test</b>		

- a. Critique this scheme. (10)
- b. Justify the development of a proper scheme of work, indicating why the different parts of a scheme are necessary. (10)
- c. Present arguments for drawing a comprehensive scheme of work at the beginning of the year. Show how the presence of a syllabus is not sufficient. (15)