

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER 2006: BED III PRIMARY

COURSE NUMBER: PEC 376

COURSE NAME: CURRICULUM STUDIES IN SCIENCE WITH MATHEMATICS

TIME ALLOWED: 3 HOURS

- INSTRUCTIONS:
1. THIS PAPER IS DIVIDED INTO TWO SECTIONS.
 2. ANSWER ALL QUESTIONS IN SECTION A. ANSWER ANY THREE (3) 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: GRADE VII MATHEMATICS
GRADE VII SCIENCE

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

SECTION A -

25 Marks

Answer **ALL** parts of question 1. Use the answer book provided for all answers. Do not write your answers in the question paper. This section does not require long answers.

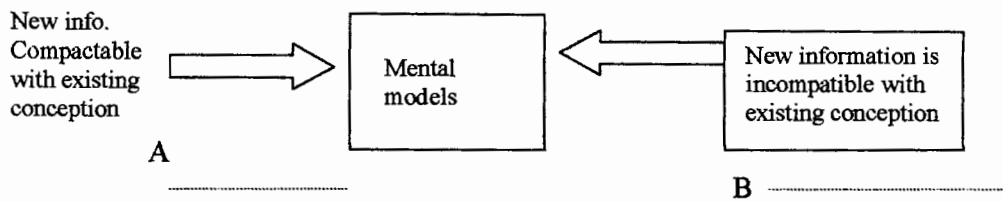
Question 1

a) Which of the following concepts is not involved in contextualised teaching?

- A Drill and Practice
- B STS education
- C Situated Cognition
- D social constructivism

(1)

b. Write the processes represented by the letters on the dotted lines below.



(2)

c) Name **five** purposes of writing a scheme of work

(5)

d) Here is a question that appeared in a test.

Question 2

A class of Grade V pupils were given the following information and asked to answer a number of questions.

Information:

A new BMW and an old Datsun left Manzini travelling to Mbabane. The BMW travelled at a speed of 100km/hour and the Datsun also travelled at 100km/hour. Which one will reach Mbabane first?

98% of Grade V learners said that the BMW reached Mbabane first. Suggest a possible explanation for this result?

- A Grade V students are not able to compare speed
- B This question has uncontrolled variables
- C This is a trick question
- D The teacher had not taught speed

(1)

- e) Write down three weaknesses which make a question inappropriate for measuring student ability (3)
- f) Briefly describe the process of
- (i) Remediation (2)
 - (ii) Enrichment (2)
- g) List **three** things that characterise an introduction to a lesson (3)
- h) What is the difference between 'hands-on' and minds-on' activities in the classroom? (4)
- i) Which of the following is true about the writing a lesson plan
- A It helps a teacher select appropriate teaching methods
 - B It can be done in a short space of time
 - C it presents a general idea of what will take place in the classroom without detail
 - D Every teacher has their own way of teaching so no one can use another teachers' plan.
- (1)

SECTION B

Answer any **three** questions from this section.

Question 2

Discuss what

- a) Situated cognition
- b) Constructivism
- c) The zone of proximal development

entails in the teaching process. (25)

Question 3

- a) One teacher said that he drew up a scheme of work when he started teaching in the school 15 years ago. Every year he transfers this scheme in to a new scheme book. His scheme book looks like this

Date in weeks	Details of topics and concept to be covered	Date of completion
Week 1 & 2	Fractions: writing proper fractions, adding and subtracting simple fractions, mixed numbers.	

Critique this teacher's scheming strategy and propose an alternative. (15)

- b) Discuss the factors influencing for curriculum change (10)

Question 4

Supposing you were observing a series of science or mathematics lessons from two teachers who had requested advice on how to improve their teaching. You reach a conclusion that teacher A's class had a language problem while teacher B's class' a motivational problem.

- a) Explain how **three** different possible sources of language problems in teacher A's class interfere with learning. (9)
- b) What might you observe in teacher B's class that led to your conclusion about the problem if you were (i) a behaviourist (ii) a humanist? (10)
- c) Write **one** thing you might say to each teacher to help them deal with their problem. (6)

Question 5

- a. Swaziland has made it policy to contextualise the teaching of science. What do you understand by this policy? (4)
- b. Using the NCC materials provided, develop contextualised introductions for **three** different lessons in either mathematics or science. You have at least one lesson in each subject. (21)