PED277 Curriculum Studies: Science I Dec 2018 lof 4

### UNIVERSITY OF ESWATINI

#### FINAL EXAMINATION PAPER December 2018: BED II PRIMARY

#### COURSE NUMBER: PED277

#### COURSE NAME: CURRICULUM STUDIES: SCIENCE I

TIME ALLOWED: 3 HOURS

- INSTRUCTIONS: 1. THIS PAPER HAS SIX QUESTIONS. QUESTION 1 IS COMPULSORY.
  - 2. ANSWER QUESTION 1 AND ANY **THREE** OTHER QUESTIONS.
  - 3. YOU WILL ANSWER A TOTAL OF **FOUR** QUESTIONS. EACH QUESTION IS WORTH 25 MARKS.
  - 4. DOCUMENTS REFERRED TO IN SOME OF THE QUESTIONS ARE ATTACHED. IF YOU DO NOT FIND THEM, ASK FOR THEM.
  - 5. ANY PIECE OF WRITTTEN WORK WHICH IS NOT FOR MARKING PURPOSES MUST BE <u>CROSSED OUT</u> CLEARLY.

Answer Question 1 and any three other questions from this paper.

### **Question 1** Compulsory a. Write short notes on the following (13)i. Problem solving ii. Meaningful learning Argumentation iii. b. In the structure of the Ministry of Education and Training of Eswatini are the following positions: the Minister of Education as head of. Describe i. Two other offices within the within the head- quarters showing their responsibilities and who they report to. (6)

ii. **Two** from outside of the headquarters and their responsibilities. (6)

### Total

## 25 Marks

(12)

## Choose any THREE questions from the following

## **Question 2**

- a) Distinguish between 'objectives' and 'key points' with the aid of examples from a topic on 'plant life' (7)
- b) Write **two** objectives from each of the four learning domains (a total of 6 objectives). (18)

Total

25 Marks

# Question 3

Mr. Zondo, a Grade 6 teacher indicated that he always encouraged learners to think critically during Science lessons. Study the activity below, which is a conversation between 2 students. Read it carefully:

## Activity 1 Topic: Separation of salt and sand mixture

After two students had already drained the salt solution from the wet sand and were waiting for the water from the solution to dry as they were evaporated it over the burner, Sipho suggested that they transfer the salt solution onto a piece of filter paper

Sipho: Here ... take one of those (filter paper) and put this on top. You put the salt (solution) on top (of the filter paper) and the salt stays on. The salt goes through and the water doesn't. Themba: why should we do that?

Sipho: That is what Mr Gule (teacher) told me to do.

Themba: You mean that the salt will goes through that filter paper? Sipho: Yes

They waited a few more minutes and then went to fetch the filter paper

- a. Suggest with reasons, the teaching method used. (5)
- b. Identify how critical thinking was encouraged (5)
- c. Suggest how Mr Zondo could improve Activity 1 (10)
- d. Identify and describe the problem in this activity (5)

## **Question 4**

- a. Teacher A believes in traditional classroom practices while teacher B is a strong believer in Piaget's constructivism. Supposing you were an inspector visiting the school to observe both teachers engaged in science classroom activities. Describe, with examples of actual activities, what you might see in each class. (20).
- b. How does Vygotsky's Zone of Proximal Development (ZPD) informs teaching? (5)

Total

25 Marks

# Question 5

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- a. Describe how each of the following affects the choice of teaching methods. (15)
  - i. Triangulation
  - ii. Content
  - iii. Learning styles
- b. The following is suggested by two teachers as the preferred method of teaching. Justify each choice indicating what it means. (10)
  - i. Teacher A: Discovery
  - ii. Teacher B: Problem solving

#### Total

25 Marks

### **Question 6**

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- a. Outline the characteristics of a contextualised lesson.
- b. Write a context for a lesson on 'magnets'.
- c. Describe five advantages of context based teaching.

Total

-10

25 Marks