UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER May 2018: BED II PRIMARY

COURSE NUMBER: PED276

COURSE NAME: CURRICULUM STUDIES: Mathematics I

TIME ALLOWED: 3 HOURS

INSTRUCTIONS:
1. THIS PAPER HAS SIX QUESTIONS.
2. ANSWER ANY **FOUR** QUESTIONS.
3. 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 CROSSED OUT CLEARLY.

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

Answer any **FOUR** questions from this paper.

Question 1

a. Illustrate the following with examples from mathematics: (12)

   i. Commutative property of addition
   ii. Transitivity theory
   iii. Conserving number
   iv. Inclusion relationship

b. Show how: a stage 1, stage 2 and stage 3 learner may approach a task involving classification. (6)

c. Illustrate the principle of proximity and separation in geometry. (3)

d. Explain why children find it difficult to learn mathematics giving at least **four** reasons. (4)

Total **25 Marks**

Question 2

a. You are supposed to teach mathematics to grade 1 and grade 2 learners and you decide to use the mathematics laboratory approach.

   i. Justify the choice of this approach, include issues of developmental of abilities (5)
   ii. Describe the classroom arrangement and the nature of activities you might give them to help them develop the concept of number. (6)
   iii. Develop an assignment card for the activity (10)

b. Illustrate the use of the number line to teach a lesson on adding single digit number. (4)

Total **25 Marks**

Question 3

a. Supposing you are observing mathematics classes and find that teacher A believes in Piaget's view to learning while teacher B believes in Gagne, describe what you would expect to see in those classes. (16)

b. Using the problem '27.31×0.034' develop Gagne' task analysis explaining its importance to successful teaching. (9)

Total **25 Marks**

Question 4

a. Supposing you are going to teach place value to a Grade IV class

i. Write **three** (3) objectives and 1 key point for a lesson involving this activity. (9)

ii. Suggest an activity you might use to teach this lesson. (5)

iii. Identify **one** teaching resource that might be useful for this purpose (1)

b. What is involved in a problem solving lesson in mathematics. (10)

Total **25 Marks**

Question 5

a. Design activities to show how Online learning can be used as (16)

(i) Direct teacher cantred

(ii) Indirect learner centred methods.

b. Describe the Socratic method of questioning giving an example to illustrate your answer. (9)

Total **25 Marks**

Question 6

a. What is the difference between assessment and evaluation? (4)

b. Write **three** uses of assessment. (6)

c. Design **four (4)** multiple choice questions for the topic "addition of two digit numbers". (12)

d. Identify the error in the following assessment tasks and suggest how you might address it. Give your reason for your answer (3)

i. $21.05 + 422.1 = 632.5$
ii. $120 \div 21 = 0.175$

Total **25 Marks**

END OF PAPER