UNIVERSITY OF EDUCATION, WINNEBA
INSTITUTE FOR TEACHER EDUCATION AND
CONTINUING PROFESSIONAL DEVELOPMENT
(ITECPD)
END-OF-SECOND-SEMESTER EXAMINATIONS. JAN., 2023

LEVEL 300
COURSE CODE: PBM 361
COURSE TITLE: TEACHING AND ASSESSING UPPER PRIMARY

MATHEMATICS (ADVANCED)

TIME ALLOWED: 50 MINUTES

STUDENT'S INDEX NUMBER:

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GENERAL INSTRUCTIONS:
- This paper is made up of ONE SECTION.
- *Section B is made up of four essay type questions.*
- *Answer TWO questions into your answer booklet.*
- *Each question carries equal marks. You are expected to start each question on a new page.*
- *You are expected to handover your answer booklet to the invigilator before you leave the examination hall.*

SECTION B

1. (a) Learner simplified $\frac{16}{64}$ as follows $\frac{16}{64} = \frac{1}{4}$. Identify the problem with the solution and explain how you will help the learner simplify the fraction correctly. *(5 marks)*
   (b) A primary 6 pupil was of the view that the digit 5 in the number 1354 is greater than the digit 1. How would you help this child to discover that 1 is bigger than 5 using a concrete material? *(5 marks)*

2. (a) Explain how you would help a basic 5 pupil convert 324_{five} into natural base ten numerals using Dienes multi-base algorithm. *(5 marks)*
   (b) Describe how you will lead Basic 6 learners to determine that the area of a triangle is given by $\frac{1}{2}(b \times h)$, where 'b' is the base of the triangle and 'h' is the height of the triangle. *(5 marks)*

3. (a) Explain the concept *conservation of length*. *(2 marks)*
   (b) In your study group discussion, a colleague said *the concept of area* is given by the *product of length and breadth*. Another colleague reacted that area is given by *the product of one-half base and height*. Do you agree or disagree? Justify your answer. *(4 marks)*
   (c) How will you use any two (2) records keeping that can be used in the teaching and assessment upper primary mathematics *(4 marks)*

4. (a) Explain to a Basic 5 pupils the difference between 3D and 2D shapes. *(4 marks)*
   (b) The probability of rolling a die and getting the face 2 turning up is $\frac{1}{6}$. How would you explain 1 and 6 in the fraction to a basic 6 pupil? *(6 marks)*.

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