



UNIVERSITY OF EDUCATION, WINNEBA  
INSTITUTE FOR TEACHER EDUCATION AND  
CONTINUING PROFESSIONAL DEVELOPMENT  
(ITECPD)



END-OF-FIRST-SEMESTER EXAMINATIONS, AUGUST, 2023

LEVEL 300

COURSE CODE: JBM 351

COURSE TITLE: TEACHING AND ASSESSING JHS MATHEMATICS

TIME ALLOWED: 2 HRS

STUDENT'S INDEX NUMBER:

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**GENERAL INSTRUCTIONS:**

- This paper is made up of ONE SECTION.
- The Section is made up of five essay type questions.
- Answer any THREE questions in your answer booklet.
- Each question carries equal marks. You are expected to start each question on a new page.
- You are expected to hand over your answer booklet to the invigilator before you leave the examination hall.

**Instruction:** Answer any three (3) questions in the answer booklet provided.

- Q1. (a) Show and explain how you would guide a Basic 7 pupil to find the product  $0.4 \times 0.7$ , using a named concrete material.
- (b) Using a  $10 \times 10$  square grid, describe an activity you would use to help a Basic 7 pupil arrange the following fractions in ascending order: 65%, 0.5 and  $\frac{3}{5}$ .
- Q2 (a) Explain clearly to a JHS pupil why "The set of tall boys in a class" is not well-defined.
- (b) Describe how you would guide pupils in a JHS class to find out for themselves that the number of subsets of a set is given by  $2^n$ , where  $n$  is the number of members in a set.
- (c) Explain the term "non-terminating decimal fraction" to a JHS pupil, giving a suitable examples.

Q3. Describe how you will guide a Junior High School pupil to discover for herself/himself that the area  $A$ , of the scalene triangle PQR with base length  $b$  centimeters and height  $h$  centimeters (shown below) is given by;  $A = \frac{1}{2} bh \text{ cm}^2$

Q4 Describe how you would guide a JHS 1 learner to:

(a) organize the following test scores of 24 pupils in a frequency table;

24	24	22	25	24	23	21	24
20	23	20	21	23	22	23	25
21	19	23	22	24	23	19	20

(b) represent the data on a bar chart.

Q5 (a) Show and explain step by step, how you would lead a Basic 7 pupil to bisect an angle using a pair of compass and a ruler only.

(b) Describe the steps you would follow in guiding pupils in Junior High School Form 1 to construct a perpendicular to a horizontal line from a point outside the line.