

Student's Index No. \_\_\_\_\_ Signature: \_\_\_\_\_



UNIVERSITY OF GHANA

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DEPARTMENT OF TEACHER EDUCATION

SCHOOL OF EDUCATION AND LEADERSHIP

COLLEGES OF EDUCATION

END OF SEMESTER TWO EXAMINATIONS, 2024/2025

TIME: 2 HOURS

COURSE CODE: TEUP 304

COURSE TITLE: TEACHING AND ASSESSING UPPER PRIMARY MATHEMATICS  
(ADVANCED)

**INSTRUCTIONS:** This paper consists of Sections A and B. Answer all the questions in Section A and three from Section B.

**SECTION A**

[25 marks]

Answer all the questions in this section.

1. A primary five pupil who have developed number sense will exhibit all the following characteristics EXCEPT .....
  - A. composes and decomposes numbers
  - B. relates number to real life problems
  - C. remembers formulae for solving mathematical problems
  - D. understands that each number is represented by its own symbol and quantity
2. Which of the following is most important in defining any numeration system?
  - A. Number and numeral
  - B. Symbols and rules
  - C. Value and rules
  - D. Value and symbols
3. Which of the following is purely an additive numeration system?
  - A. Babylonian
  - B. Egyptian
  - C. Hindu-Arabic
  - D. Mayan

4. Which of the following is NOT true about the Egyptian numeration system? It is...
- a decimal numeration system
  - additive
  - positional
  - written from right to left
5. The Roman numeration system has separate symbols for all the following numbers EXCEPT.....
- 5
  - 10
  - 20
  - 100
6. In 1957, Ghana gained her independence. Which of the following Roman Numerals represents the year Ghana had her independence?
- MCMLVII
  - MCMLXXV
  - MDMLVII
  - MMCLVII
7. Mrs. Agnes, a primary five teacher asked her students to write the 2, 3, 4, 5, 6, 7 and 8 in quinary numbers. The pupils were confused because they did not know that quinary numbers are in base .....
- Five
  - Seven
  - Six
  - Nine
8. All the following are resources that can be used to introduce the concept of place value EXCEPT
- Abacus
  - Bundle and loose sticks
  - Cuisenaire rods
  - Multi-base block
9. Fractions that represent the same number but have different names are called .....
- Fractions
- Common fractions
  - Equal
  - Equivalent
  - Proper fractions
10. Isabella and Monira shared an amount. Isabella had  $\frac{3}{4}$  of the money while Monira had  $\frac{2}{3}$  of the money. Which of the following statements is correct?
- Isabella had more money than Monira
  - Monira had more money than Isabella
  - More information is needed to determine who had more
  - There is no difference in the amount each got.

11. Given that,  $\frac{m}{n} = \frac{x}{y}$ , which of the following relationship is NOT always true?
- $\frac{m+x}{n+y} = \frac{x}{y}$
  - $\frac{mx}{ny} = \frac{x}{y}$
  - $\frac{m}{m+n} = \frac{x}{x+y}$
  - $my = nx$
12. If there are 3 boys for every 7 girls in a school, how many girls attend the school if the total student enrolment consists of 440 students?
- 110
  - 132
  - 176
  - 308
13. A primary four teacher uses end of term exams, end of year exams and class test to assess pupils. Which of the following forms of assessment was predominant?
- Assessment as Learning
  - Assessment for Learning
  - Assessment in Learning
  - Assessment of Learning
14. Which of the following tools is NOT appropriate for diagnosing misconceptions of students in the upper primary?
- Interviews
  - multiple choice items
  - open-ended questions
  - true or false items
15. Which of the following forms of assessment do upper primary school teachers use to evaluate students' strengths, weaknesses, knowledge and skills before their instruction?
- Diagnostic
  - Formative
  - Remedial
  - Summative
16. What is the relationship between circumference and diameter in teaching measurement of a circle
- Radius
  - Centre
  - Chord
  - Pi
17. One of the following shapes serve as the basic shape that can be used in deriving the formulae for finding the area of plane shapes.
- Triangle
  - Trapezium
  - Rectangle
  - Pentagon

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18. What is the arbitrary unit of measurement of time
- A. Wall clock
  - B. Shadow
  - C. Moon
  - D. Digital clock
19. The following are solid shapes except
- A. Cube
  - B. Cylinder
  - C. Triangle
  - D. Triangular prism
20. All the following are prisms except
- A. Cube
  - B. Cuboid
  - C. Cone
  - D. Sphere
21. Where two faces of a solid shape meet it is called
- A. Vertex
  - B. Edge
  - C. Flat face
  - D. Curve surface
22. A line that moves from the centre of a circle to the circumference of a circle is called
- A. Chord
  - B. Diameter
  - C. Radius
  - D. Vertical height
23. The following are all good purpose of undertaking assessment except
- A. Listing pupils in order of performance
  - B. Diagnosis and guidance
  - C. Monitoring pupils' performance over time
  - D. Grading pupils
24. How, can one identify that counting in Ghanaian languages is done in base ten?
- A. Language
  - B. Digits
  - C. Sound
  - D. Numbers
25. The structure and organization of the standard base curriculum is
- A. Strand, sub-strand, learning indicator and content standard.
  - B. Strand, sub-strand, content standard and learning indicator
  - C. Sub-strand, strand, content standard and learning indicator
  - D. Content standard, learning indicator, strand and sub-strand.

## SECTION B

[75 marks]

Answer three questions from this section.

1. a. Arrange the following in descending order,  $31_{\text{eight}}$ ,  $100001_{\text{two}}$ ,  $10100_{\text{two}}$  and  $120_{\text{four}}$  (10marks)

b. describe how you will use a concrete material to assist a basic six pupil rewrite  $125_{\text{six}}$  as a base ten numeral (15marks)

2a. i. Explain the concept of place value. (3marks)

ii. Explain any three reasons why you think upper primary pupils should be introduced to the concept of place value. (12 marks)

b. Isaac Ofori spent GHC365 during their SRC elections while Mr. Muniru Osman spent GHC286 for same purpose. Using a named material, explain how you would help a primary four pupil to determine how much the two contestants spent altogether during the elections? 10marks

3a. i. What is arbitrary unit in measurement? (3 marks)

ii. State non-standard units of measure for

- length
- time
- money (1 mark each)

a) Explain into detail why the need for introduction of standard unit of measure in measurement. (10 marks)

b) Outline the steps you follow to guide basic 5 pupils to measure perimeter of a named shape. (9 marks)

4a. What is micro-teaching? (9marks)

b. Explain any four importance of micro-teaching to the pre-service teacher. (16marks)

5a. Explain the following forms of assessment as used in upper primary mathematics classrooms. (9marks)

- i. Assessment of Learning
- ii. Assessment for Learning
- iii. Assessment as Learning

b. Explain any FOUR reasons why teachers assess their pupils (16marks)