



UNIVERSITY OF GHANA

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DEPARTMENT OF TEACHER EDUCATION  
SCHOOL OF EDUCATION AND LEADERSHIP  
COLLEGES OF EDUCATION

END OF YEAR TWO SEMESTER TWO EXAMINATIONS, 2023/24  
B.ED. PROGRAMME

COURSE CODE: TEEG 212

COURSE TITLE: TEACHING AND ASSESSING NUMERACY 1 AT THE  
EARLY GRADE

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*Instruction:* Answer **all** questions in Section A and any **three** in Section B.  
Time: 2 hours

SECTION A  
[25 Marks]

Answer all the questions in this section.

1. The Latin origin of the word curriculum literally means to \_\_\_\_\_.
  - A. teach others.
  - B. run a course.
  - C. study a subject.
  - D. share knowledge.
2. The main purpose of classroom assessment is to
  - A. compare learner's performance.
  - B. Improve instruction.
  - C. measure teachers' effectiveness.
  - D. report to parents.
3. Which of one the following curricula is currently being used in Ghanaian schools, that is shifting the structure and content of the education system from merely passing examinations to building character?
  - A. National Council curriculum.
  - B. Subject-based curriculum.
  - C. Objective-based curriculum.
  - D. Standard-based curriculum.

4. Content standard as used in the new mathematics curriculum refers to
- broad areas of the mathematics content to be studied.
  - outcome or milestone that learners must exhibit for each lesson.
  - topics within broad areas under which the content is organized.
  - the pre-determined level of knowledge, skill, and attitudes that learners attain by a set stage of education.
5. The connected body of core skills that students are supposed to acquire throughout the process of teaching and learning in the early grade mathematics syllabus are referred to as
- Competencies.
  - Indicators.
  - Outcomes.
  - Standards.
6. One reason why a teacher would engage children in sorting activities is to enable them \_\_\_\_\_
- add numbers.
  - conserve numbers.
  - identify numbers.
  - subtract numbers.
7. When a child mentions the number a footballer like Asamaoh Gyan plays in a team, she/he is using number in the \_\_\_\_\_ sense.
- Cardinal.
  - Nominal.
  - Ordinal.
  - Ratio.
8. When a child is able to tell that the number of objects in a group does not change even if they are spread over a large space, the child is said to have conserved \_\_\_\_\_
- Volume.
  - Number.
  - Iconic.
  - Symbolic.
9. Which one of the following does a child need to know to be able to count the objects in a given group?
- Conservation of numbers.
  - Sorting of objects.
  - The numerals.
  - The number names.
10. Which one of these is the most suitable order of activities designed to help children understand early number concepts?
- Abstract, Concrete, and Semi-concrete.
  - Concrete, Abstract, and Semi-concrete.
  - Concrete, Semi-concrete and Abstract.
  - Semi-concrete, Abstract, Concrete.



11. A child who cannot count can determine which of two groups has more members by \_\_\_\_\_
- A. Counting.
  - B. Matching.
  - C. Sorting.
  - D. Grouping.
12. What is the value of 7 in 23729394?
- A. Seven hundred million.
  - B. Seven Hundred thousand.
  - C. Seven million.
  - D. Seven thousand.
13. Which of the following numerals has the 5 in the hundreds position?
- A. 9580132.
  - B. 42494598.
  - C. 104945230.
  - D. 6841509210.
14. Expand the numeral 7403425
- A.  $7,000,000+400,000+0+3,000+400+20+5$
  - B.  $7,000,000+400,000+0+3,000+400+20+50$
  - C.  $7,000,000+400,000+0+300+40+20+5$
  - D.  $700,000+40,000+0+3,000+400+20+5$
15. A procedure in teaching early grade mathematics where items or elements in a group are paired or associated with those of another group is termed
- A. Classification.
  - B. Comparison.
  - C. Matching.
  - D. Sorting.
16. Which of Dienes' base ten blocks would you use to represent the digit "8" in helping a primary 2 learner to understand the value of the number 82?
- A. Blocks.
  - B. Flats.
  - C. Longs.
  - D. Units.
17. Algebra, as a strand in Mathematics is taught across various classes in Ghana's early grade schools. This type of ordering subject matter is referred to as \_\_\_\_\_
- A. authoritative ordering.
  - B. horizontal sequencing.
  - C. utility ordering.
  - D. vertical sequencing.

18. Which one of the following teaching- learning materials or model is the most appropriate to use in teaching addition of two- digit whole numbers with renaming?
- Abacus.
  - Bottle tops.
  - Cuisenaire rods.
  - Number line.
19. A primary 1 learner can determine the exact number of objects in a set by
- Sorting.
  - Matching.
  - Counting.
  - Grouping
20. Which one of the following is an objective of summative assessment?
- It attempts to correct errors and difficulties of pupils.
  - It identifies and examines critically content to be assessed.
  - It provides information about learner's level of achievement.
  - It provides opportunity to assess pupils' writing skills in examination.
21. An early grade learner wants to find the double of the highest double-digit number. What will be the answer
- 4.
  - 88.
  - 989.
  - 198.
22. A collection of pearls in three years is 172, 235 and 112 more than the collection of the first two years respectively. What is the total collection?
- 407
  - 519
  - 926
  - 1038
23. At the junction of Enchico, Biney, who has 400 in his pocket, bought 3 bags for 100 each, a pair of sandals for 59 and a belt. If the money left with him is 19, how much is the belt?
- 19
  - 22
  - 29
  - 222
24. Which one of these skills demonstrates an understanding of addition facts?
- Copying of facts.
  - Explaining the facts
  - Memorizing the facts.
  - Reciting the facts.



STUDENT'S ID NO: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

25. How will an early-grade learner who cannot measure tell which of two sticks is longer?

- A. measuring with standard unit
- B. matching with other sticks
- C. direct comparison of the sticks
- D. Indirect sorting of the sticks

## SECTION B – Answer any three questions

- 1a. Describe how you would help your learners in Basic three (3) to differentiate between the digit 6 in the figures 364 and 96 using concrete material. [16 marks]
- 1b. Describe the domains of the National Teachers Standards [9 marks]
- 2a. State four reasons why we teach and learn mathematics [8 marks]
- 2b. Explain the two main types of assessment [8 marks]
- 2c. Justify three important concepts in mathematics which you would expect a child to have understood before introduced to operations on whole numbers. [9 marks]

- 3a. Find the value of the variables P, R and T in the table below. [6 marks]

	4	0	R
	P	1	3
+	7	2	5
	1 9	3	1 4
1	9	T	4

3b. Kofi and Ama worked 43-28 and 378-26 respectively as

$$\begin{array}{r} 43 \\ - 28 \\ \hline \end{array}$$

and

$$\begin{array}{r} 378 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 378 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 378 \\ - 26 \\ \hline 118 \end{array}$$

[19 marks]

- Explain their thinking process
- Name two appropriate materials you can use to solve the problem
- Use the named material to solve the problem through a step-by-step approach.

4a. What is assessment in mathematics

[4 marks]

4b. Explain assessment as learning, for learning and of learning in mathematics education

[12 marks]

4c. Describe briefly how you will explain the difference between the terms 'Cardinal number' and 'Ordinal number' to primary class 2 learners. Give an example each to support your explanation.

[9 marks]

5a. State two Pre-number activities and explain

10marks

5b. Mention four reasons why learners must be taught the concept of place value

[8marks]

5c. You are preparing for your micro lesson as an early-grade teacher. Explain three relevant things you would do before the lesson and why.

[7Marks]