JULY 2023
EBS 322
METHODS OF TEACHING PRIMARY SCHOOL MATHEMATICS
30 MINUTES

Candidate's Index Number
Signature:

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH
INSTITUTE OF EDUCATION

COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
THIRD YEAR, FIRST SEMESTER MID SEMESTER QUIZ, JULY 2023

24TH JULY 2023 **METHODS OF TEACHING PRIMARY SCHOOL MATHEMATICS** **8:00 AM – 8:30 AM**

Answer ALL the questions.
(20 MARKS)

For items 1 to 14, each stem is followed by four options lettered A to D. Read each item carefully and circle the letter of the correct or best option.

1. A B4 learner should be led to identify the following numerals: 13, 15, 17, 19, 33, 45 as belonging to a set of what type of numbers? ..... numbers.
   A. Composite
   B. Even
   C. Odd
   D. Triangular

2. A B4 learner should be led to identify the following numerals: 14, 26, 112, 314, 598, as belonging to a set of what type of numbers? ..... numbers.
   A. Composite
   B. Even
   C. Odd
   D. Triangular

3. A B5 learner must discover that a prime number .....
   A. has no digit of 0 in it.
   B. has only two factors, 1 and the number itself.
   C. is an odd number.
   D. is not divisible by 2.

4. A B4 learner should be led to conclude that the numerals: 9, 15, 24, 27, 36 are all examples of ..... numbers.
   A. composite
   B. even
   C. odd
   D. triangular

5. Which of the following should a B5 learner select as **all** the factors of 45?
   A. 3, 5, 15
   B. 1, 3, 5, 9, 15
   C. 1, 3, 5, 9, 15, 45
   D. 3, 5, 6, 9, 15, 45

6. Which of the following should a B5 learner discover as a sequence of multiples of 5?
   A. 5, 10,15, 20, 25, ...
   B. 5, 15, 25, 30, ...
   C. 1, 5, 10, 15, 20, 25, 30.
   D. 10, 20, 30, 40, 50

7. To write down the prime factorisation of a given natural number, which strategy will the learner employ? ..... of the number.
   A. Drawing the factor tree
   B. Finding the proper factors
   C. Listing the factors
   D. Listing the multiples

8. A B6 learner indicated the prime factorization of 90 as .....
   A. 2 x 3 x 3 x 5
   B. 90, 180, 270, ...
   C. 2, 3, 5
   D. 1, 2, 3, 6, 5, 9, 10, 15, 30, 90

9. Arrange the following steps in the **correct** sequence for assisting B5 learners to find the Highest Common Factors (HCF) of 45 and 60.
   I. Finding the common factors of 45 and 60
   II. Listing the factors of 45 and 60
   III. Stating the highest of the common factors as HCF of 45 and 60

   A. I, II, and III
   B. I, III, an II
   C. II, I, and III
   D. III, II, and I

10. Knowledge of HCF is **most** appropriate in assisting a B5 learner to ..... common fractions.
   A. add
   B. multiply
   C. simplify
   D. subtract

11. A B5 or B6 learner should be assisted to define the least common multiple (LCM) of X and Y as the least .....
    A. common divisor of X and Y.
    B. multiple of X and Y.
    C. number that both X and Y can divide.
    D. of the common multiples of X and Y.

12. Which of the following pairs of operations on common fractions require the use of LCM?
    A. Addition and division
    B. Addition and multiplication
    C. Addition and subtraction
    D. Subtraction and multiplication

13. Which of the following statements gives the **best** conceptual explanation for the fraction, $\frac{2}{3}$?
    A. 2 equal parts of a whole which has been divided into 3 equal parts.
    B. 2 over 3.
    C. 2 parts of a whole which has been divided into 3 parts.
    D. The ratio of 2 to 3.

14. A B4 learner should be led to discover that the core point in addition or subtraction of like fractions is the .....
    A. addition or subtraction of both the numerators and denominators.
    B. addition or subtraction of the numerators divided by a denominator.
    C. addition or subtraction of the numerators divided by addition or subtraction of the denominators.
    D. None of the above.

For items 15 to 17, write the appropriate responses in the spaces provided.

15. Using the number line, show the pictorial representation of $6 \times \frac{2}{3}$. **2 marks**

16. Use pictorial representation to illustrate $4 \div \frac{1}{2}$ to a B6 learner. **2 marks**

17. Draw to show the modelling of the decimal fraction 1.23 using Dienes' base ten materials.
2 marks