CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

Practice Test - 11

1. This paper contains a total of **30 questions**.
2. All questions are **compulsory**.
3. Each question carries **1 mark**.
4. There is **no negative marking**.
5. The maximum marks for this test are **30**.
6. The total duration of the test is **45 minutes**.
7. Choose the most appropriate answer from the given options.
8. Use of calculators, mobile phones, or any electronic devices is **not permitted**.
9. Rough work may be done on the space provided at the end of the paper.
10. Read each question carefully before answering.

All the Best!

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1. What is the difference between the largest 4-digit number formed by the digits 0, 9, 3, 5 (using each digit exactly once) and the smallest 4-digit number formed by the same digits?

   (a) 6318

   (b) 6588

   (c) 9216

   (d) 6570

2. A teacher wants to assess the ability of students to relate a fraction to its physical representation. Which of the following is the most suitable **Formative Assessment** task?

   (a) Ask students to write the definition of a proper fraction.

   (b) Give a test with 10 questions on adding fractions with like denominators.

   (c) Ask students to shade $\frac{3}{5}$ of a circle, $\frac{1}{4}$ of a square, and $\frac{2}{3}$ of a rectangle on a worksheet.

   (d) Conduct a quick oral quiz asking students to compare fractions like $\frac{1}{2}$ and $\frac{1}{3}$.

3. If $12 \times 15 = 180$, which of the following expressions illustrates the **Distributive Property** of multiplication over addition?

   (a) $15 \times 12 = 180$

   (b) $12 \times (10 + 5) = 12 \times 10 + 12 \times 5$

   (c) $(12 \times 15) \times 1 = 180$

   (d) $180 \div 12 = 15$

4. A train leaves Station A at 19:30 hours and reaches Station B 11 hours and 45 minutes later. At what time does the train arrive at Station B?

   (a) 7:15 AM

   (b) 7:45 AM

   (c) 6:45 AM

   (d) 6:15 AM

5. To teach the concept of "Area of a rectangle," a teacher first asks students to cover a book's surface with post-it notes, then with cut-out squares. This approach aligns with which principle of mathematics learning?

   (a) Moving from abstract to concrete.

   (b) Emphasizing rote memorization.

   (c) Using play-way methods exclusively.

   (d) Moving from **non-standard units** to **standard units**.

6. A shopkeeper bought 25 kg of rice for 1250 units. He sold it all at a rate of 55 units per kg. What was his total profit or loss?

(a) Profit of 125 units

(b) Loss of 125 units

(c) Profit of 225 units

(d) Loss of 225 units

7. Which of the following numbers is both a multiple of 6 and a factor of 108?

   (a) 8

   (b) 18

   (c) 10

   (d) 24

8. A teacher notes that a student consistently fails to align digits correctly when performing subtraction of multi-digit numbers, leading to errors. Which is the most appropriate initial **remedial step**?

   (a) Immediately move to teaching multiplication to distract the student.

   (b) Ask the student to memorize the standard subtraction algorithm steps.

   (c) Use graph paper or a place value chart to help the student understand and visualize the column alignment.

   (d) Punish the student for carelessness and ask them to copy the correct solution ten times.

9. The coordinates for the vertices of a triangle $\triangle ABC$ are $A(1, 1)$, $B(5, 1)$, and $C(3, 5)$. What is the area of $\triangle ABC$?

   (a) 12 square units

   (b) 8 square units

   (c) 6 square units

   (d) 10 square units

10. A tank is $\frac{2}{3}$ full of water. If 20 liters of water are drawn out, the tank becomes $\frac{1}{2}$ full. What is the total capacity of the tank in liters?

    (a) 80 liters

    (b) 100 liters

    (c) 120 liters

(d) 60 liters

11. What is the sum of the place value of the digit '5' and the face value of the digit '7' in the number 56,742?

    (a) 50007
    (b) 50700
    (c) 5007
    (d) 507

12. Which of the following is **not** a desirable characteristic of a good mathematics textbook for the primary level?

    (a) It relates mathematics to the child's daily life and environment.
    (b) It focuses on procedural fluency rather than conceptual understanding.
    (c) It includes a variety of practice problems of increasing difficulty.
    (d) It incorporates activities and open-ended questions.

13. Simplify the following expression: $20 - [4 \times 2 + \{16 \div (8 - 4)\}]$

    (a) 8
    (b) 10
    (c) 12
    (d) 6

14. A wire of length 36 cm is bent into the shape of a rectangle. If the width of the rectangle is 8 cm, what is its area in square cm?

    (a) 80
    (b) 72
    (c) 112
    (d) 160

15. Identify the correct ascending order of the following fractions: $\frac{3}{4}$, $\frac{5}{6}$, $\frac{2}{3}$

    (a) $\frac{2}{3}, \frac{3}{4}, \frac{5}{6}$
    (b) $\frac{3}{4}, \frac{2}{3}, \frac{5}{6}$
    (c) $\frac{5}{6}, \frac{3}{4}, \frac{2}{3}$
    (d) $\frac{2}{3}, \frac{5}{6}, \frac{3}{4}$

16. To effectively encourage **mathematical thinking** and reasoning in the classroom, a teacher should prioritize:

    (a) Giving only closed-ended questions that have one correct, quick answer.

    (b) Focusing mainly on solving complex algebraic problems.

    (c) Providing open-ended problems and opportunities for discussion on different strategies.

    (d) Strictly following the prescribed textbook problems in every class.

17. How many line segments can be drawn connecting any two points among four non-collinear points A, B, C, and D?

    (a) 4

    (b) 6

    (c) 8

    (d) 12

18. A student writes $0.20 < 0.2$ as they believe that more digits after the decimal point imply a smaller value. This indicates a difficulty with:

    (a) Multiplication of decimals.

    (b) Place value understanding of decimals.

    (c) Converting fractions to decimals.

    (d) Division of whole numbers.

19. The total number of cubes in the following 3D figure, which is composed entirely of small identical cubes, is:

    (a) 26

    (b) 27

    (c) 25

    (d) 24

20. A student is given the sequence 5, 11, 17, 23, _____. Which of the following is the most likely next number based on the pattern?

    (a) 27

    (b) 29

    (c) 30

    (d) 31

21. What is the value of $\frac{1}{2} + \frac{1}{4} + \frac{1}{8}$?

    (a) $\frac{3}{8}$
    (b) $\frac{7}{8}$
    (c) $\frac{5}{8}$
    (d) $\frac{3}{4}$

22. What is the minimum number of sides a regular polygon must have to exhibit both rotational and line symmetry?

    (a) 2
    (b) 3
    (c) 4
    (d) 5

23. A fruit seller has 12 kg 500 grams of apples. He sells 7 kg 800 grams. How many grams of apples are left?

    (a) 5700 grams
    (b) 4700 grams
    (c) 4300 grams
    (d) 5300 grams

24. According to the principle of **Concrete to Abstract**, which manipulative would be best for introducing the concept of place value for the number 135?

    (a) A simple number line drawn on a board.
    (b) Base Ten Blocks (Dienes Blocks).
    (c) Only the written numerals 1, 3, 5.
    (d) A list of numbers for counting practice.

25. Which number, when divided by 10, gives a quotient of 45 and a remainder of 3?

    (a) 453
    (b) 450
    (c) 48
    (d) 435

26. The perimeter of a square is 64 cm. What is the side length of the square?

(a) 8 cm

(b) 16 cm

(c) 32 cm

(d) 4 cm

27. Which of the following teaching aids is most suitable for introducing the properties of 2D shapes (like vertices, sides, diagonals) to primary students?

    (a) Flashcards with shape names.

    (b) Geoboards or physical cut-outs of shapes.

    (c) A video lecture on Euclidean geometry.

    (d) A complex computer simulation.

28. The difference between 7 tenths and 45 hundredths is:

    (a) 0.25

    (b) 0.75

    (c) 0.35

    (d) 0.45

29. Which assessment task primarily focuses on evaluating a student's ability in **Estimation and Mental Arithmetic**?

    (a) Calculate 13.5×24 accurately on a calculator.

    (b) Find the exact product of 45×23.

    (c) Estimate the cost of 4 items costing 98, 51, 102, and 49 units, respectively, before calculating the exact total.

    (d) Measure the length of a desk using a ruler.

30. Which of the following is an **odd** number that is also a prime factor of 42?

    (a) 2

    (b) 6

    (c) 3

    (d) 21
