CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

Practice Test - 14

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 sum of the even predecessor of 101 and the odd successor of 99?

   (a) 200

   (b) 201

   (c) 199

   (d) 202

2. A teacher uses the "Think-Pair-Share" strategy while introducing a new problem. This teaching methodology primarily aims to promote: (Pedagogy)

   (a) Only rote learning of algorithms.

   (b) Individual reflection and collaborative discussion.

   (c) Strict teacher-centered instruction.

   (d) Rapid, silent problem-solving.

3. If 12.5% of a number is 250, what is 75% of that number?

   (a) 1500

   (b) 1250

   (c) 1750

   (d) 2000

4. The coordinates of a circle's center are $(3, 4)$. If the circle passes through the point $(3, 7)$, what is the area of the circle? (Use $\pi \approx 3.14$)

   (a) 9π square units

   (b) 18π square units

   (c) 25π square units

   (d) 16π square units

5. A clock shows the time 10:40 AM. What will be the time after 5 hours and 35 minutes?

   (a) 4:15 PM

   (b) 4:05 PM

   (c) 3:15 PM

   (d) 3:05 PM

6. A student writes: $36 \div 4 = 8$ and $4 \times 8 = 32$. This indicates a fundamental misunderstanding of the relationship between:

   (a) Addition and Subtraction

   (b) Place Value and Face Value

   (c) Multiplication and Division

   (d) Measurement and Geometry

7. A box contains 30 marbles: $\frac{2}{5}$ are red, $\frac{1}{3}$ are blue, and the rest are green. How many green marbles are there?

(a) 18

(b) 10

(c) 8

(d) 12

8. To ensure that mathematics learning is integrated with the child's environment (as per NCF guidelines), the teacher should prioritize: (Pedagogy)

   (a) Using abstract symbols and complex formulas only.

   (b) Starting the lesson with definitions and axioms.

   (c) Incorporating activities related to local markets, festivals, and games.

   (d) Relying entirely on international curricula and standards.

9. A rectangular plot has a perimeter of 120 meters. If the ratio of its length to its width is $3 : 2$, what is the length of the plot?

   (a) 36 meters

   (b) 48 meters

   (c) 30 meters

   (d) 72 meters

10. What is the greatest common factor (GCF) of 48, 72, and 96?

    (a) 12

    (b) 8

    (c) 24

    (d) 16

11. Simplify the expression: $9 \times 9 - (9 \div 9 + 9)$

    (a) 71

    (b) 70

    (c) 81

    (d) 63

12. When conducting a **Summative Assessment** in mathematics, the primary focus should be on: (Pedagogy)

    (a) Providing immediate, personalized feedback for correction during the lesson.

(b) Documenting overall student achievement at the end of a unit or term.

(c) Encouraging creative thinking over core skills.

(d) Identifying small, daily errors in homework.

13. A vendor bought 10 dozen bananas. If 18 bananas were rotten, and he sold the rest for Rs. 5 per banana, how much revenue did he generate?

(a) Rs. 480

(b) Rs. 510

(c) Rs. 600

(d) Rs. 540

14. Which of the following numbers is the result of multiplying the smallest odd prime number by the smallest even prime number?

(a) 2

(b) 3

(c) 6

(d) 4

15. How many centimeters are there in $3\frac{1}{4}$ kilometers?

(a) 32500 cm

(b) 325000 cm

(c) 302500 cm

(d) 30250 cm

16. The line $y = 3$ intersects the line segment connecting $A(1, 1)$ and $B(5, 5)$ at a point C. What are the coordinates of point C?

(a) $(3, 3)$

(b) $(3, 4)$

(c) $(4, 3)$

(d) $(2, 3)$

17. Which geometrical shape has zero edges, zero vertices, and one curved face?

(a) Cube

(b) Cone

(c) Sphere

(d) Cylinder

18. When teaching students to convert 1 meter to 100 centimeters, a teacher should emphasize that this is: (Pedagogy)

    (a) Changing the physical length.

    (b) Changing the name of the unit used for measurement, not the quantity.

    (c) Only useful for high school physics.

    (d) Simply memorizing a fixed formula.

19. If the pattern continues, what will be the 7th term in the sequence: $100, 95, 90, 85, \ldots$?

    (a) 70

    (b) 75

    (c) 65

    (d) 80

20. A student incorrectly stated that $\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$. The most effective remedial teaching step would be: (Pedagogy)

    (a) Deducting marks heavily for the error.

    (b) Using fraction circles or fraction strips to visually demonstrate the need for a common denominator.

    (c) Asking the student to perform complex multiplication of the numerators.

    (d) Telling the student to look up the correct answer in the textbook.

21. Arrange the following decimals in descending order: $3.03, 3.3, 3.003, 3.303$

    (a) $3.303, 3.3, 3.03, 3.003$

    (b) $3.3, 3.303, 3.03, 3.003$

    (c) $3.003, 3.03, 3.3, 3.303$

    (d) $3.303, 3.03, 3.003, 3.3$

22. What is the value of $\frac{1}{2}$ of 1 hour $+\frac{1}{4}$ of 40 minutes in total minutes?

    (a) 40 minutes

    (b) 45 minutes

(c) 50 minutes

(d) 48 minutes

23. A triangle $\triangle ABC$ has vertices $A(0,0)$, $B(4,0)$, and $C(0,3)$. What is the length of the longest side?

    (a) 3 units

    (b) 4 units

    (c) 5 units

    (d) $\sqrt{12}$ units

24. Which of the following is an example of an **open-ended question** that encourages divergent thinking? (Pedagogy)

    (a) What is the product of 5 and 6?

    (b) What is the definition of a prime number?

    (c) Name three shapes that have four sides.

    (d) A garden has a perimeter of 24 meters. What could be the possible lengths and widths of the garden?

25. The number 987,654 is exactly divisible by:

    (a) 5

    (b) 6

    (c) 10

    (d) 8

26. A piece of cloth is 4.5 meters long. If a tailor cuts 1.25 meters and 1.5 meters from it, how much cloth remains?

    (a) 1.75 meters

    (b) 2.75 meters

    (c) 1.50 meters

    (d) 1.25 meters

27. When teaching **Data Handling** to primary children, the use of tally marks is primarily a step toward:

    (a) Calculating standard deviation.

    (b) Formalizing the organization and counting of collected data.

    (c) Drawing complex line graphs.

(d) Solving differential equations.

28. What is the difference between the sum of the even numbers and the sum of the odd numbers in the set $\{1, 2, 3, 4, 5, 6, 7\}$?

    (a) 4

    (b) 5

    (c) 3

    (d) 6

29. A student is using a ruler that starts at the 1 cm mark instead of 0 cm. This demonstrates a difficulty with:

    (a) Estimation of length.

    (b) Using non-standard units.

    (c) Reading the clock.

    (d) Understanding the zero-point and measuring from the origin.

30. If 1.5 is expressed as a fraction in its simplest form, it is:

    (a) $\frac{3}{2}$

    (b) $\frac{15}{10}$

    (c) $\frac{5}{2}$

    (d) $\frac{3}{5}$