

CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

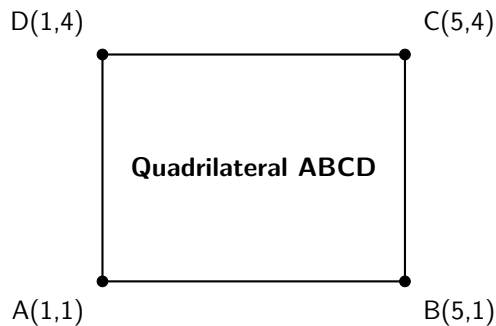
Practice Test - 23

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.
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All the Best!

1. The total number of prime numbers between 50 and 70 is:
 - (a) 5
 - (b) 6
 - (c) 4
 - (d) 7
2. When a student writes $24 \times 10 = 240$ and $24 \times 100 = 2400$, but struggles with 2.4×10 , this suggests a lack of understanding of:

- (a) Subtraction principles.
 - (b) The relative size of large whole numbers.
 - (c) The effect of place value shift in decimal multiplication.
 - (d) Geometric patterns.
3. A train travels 400 km in 5 hours. If it travels at the same speed, how much distance will it cover in 2 hours and 30 minutes?
- (a) 150 km
 - (b) 200 km
 - (c) 180 km
 - (d) 250 km
4. A quadrilateral has vertices at $A(1, 1)$, $B(5, 1)$, $C(5, 4)$, and $D(1, 4)$.



- What is the area of this quadrilateral?
- (a) 16 square units
 - (b) 12 square units
 - (c) 15 square units
 - (d) 18 square units
5. Which of the following pedagogical strategies should a teacher use when teaching the concept of **zero** to primary students?
- (a) Focus only on the rule that 'any number multiplied by zero is zero'.
 - (b) Introduce it only after multiplication and division.
 - (c) Use real-life scenarios and manipulatives (e.g., counters in a box) to show 'nothingness' or 'absence of quantity'.
 - (d) Avoid using zero until the secondary level.
6. Find the value of: $\frac{1}{2} + \frac{1}{4} - \frac{1}{8}$

- (a) $\frac{5}{8}$
 - (b) $\frac{3}{8}$
 - (c) $\frac{7}{8}$
 - (d) $\frac{1}{2}$
7. The length and width of a rectangle are 12.5 cm and 8.4 cm, respectively. What is the perimeter of the rectangle?
- (a) 20.9 cm
 - (b) 41.8 cm
 - (c) 105.0 cm
 - (d) 40.8 cm
8. What is the difference between 3.5 and 2.05?
- (a) 1.5
 - (b) 1.45
 - (c) 0.45
 - (d) 1.95
9. In the context of the primary syllabus, **Venn Diagrams** are used informally for teaching which core skill?
- (a) Comparing properties of shapes and numbers using intersection and union.
 - (b) Complex statistical inference.
 - (c) Advanced set theory notation.
 - (d) Memorizing mathematical terms.
10. The smallest 4-digit number that is exactly divisible by 3, 4, and 5 is:
- (a) 1000
 - (b) 1020
 - (c) 1080
 - (d) 1200
11. A packet of biscuits weighs 125 grams. How many such packets can be packed in a box that can carry a total weight of 1.5 kilograms?
- (a) 10
 - (b) 12

- (c) 15
 - (d) 8
12. Which of the following is an example of a 3D shape that has 1 vertex and 1 flat face?
- (a) Cube
 - (b) Sphere
 - (c) Cylinder
 - (d) Cone
13. If $X = 50 + 5 + 0.5 + 0.05$ and $Y = 55.55$, then the value of $X - Y$ is:
- (a) 0.05
 - (b) 0
 - (c) 0.5
 - (d) 5.05
14. A teacher observes that a student struggles with ****estimation**** in problem-solving. A suitable remedial activity would be:
- (a) Asking the student to perform complex calculations without a calculator.
 - (b) Requiring the student to round numbers to the nearest 10 or 100 before calculating to predict the approximate answer.
 - (c) Focusing only on exact answers.
 - (d) Giving only problems involving factors and multiples.
15. The pattern 1, 2, 4, 8, 16, ... follows the rule of:
- (a) Adding 1, then 2, then 4, ...
 - (b) Multiplying by 2
 - (c) Squaring the previous number
 - (d) Adding the sequence position
16. A sum of money triples itself in 5 years. What is the approximate percentage rate of simple interest per annum?
- (a) 30%
 - (b) 40%
 - (c) 20%

- (d) 50%
17. A line passes through the points $A(2, 3)$ and $B(6, 3)$. This line is:
- (a) Vertical (parallel to the Y-axis)
 - (b) Parallel to the X-axis
 - (c) Passing through the origin
 - (d) Perpendicular to the X-axis
18. What is the result when $1\frac{1}{2}$ is divided by $\frac{3}{4}$?
- (a) 2
 - (b) $\frac{9}{8}$
 - (c) $\frac{2}{3}$
 - (d) 4
19. When assessing a student's conceptual understanding of the relationship between addition and subtraction, the most effective question would be:
- (a) Calculate $1000 - 99$.
 - (b) If $15 + 8 = 23$, write two related subtraction facts.
 - (c) What is the definition of subtraction?
 - (d) Solve $23 + 8 + 15$.
20. If the volume of a cube is 125 cubic cm, what is the area of one face of the cube?
- (a) 5 square cm
 - (b) 25 square cm
 - (c) 15 square cm
 - (d) 100 square cm
21. The time 11 : 50 AM is how many minutes away from noon (12 : 00 PM)?
- (a) 50 minutes
 - (b) 10 minutes
 - (c) 70 minutes
 - (d) 20 minutes

22. The total number of diagonals that can be drawn from one vertex of a pentagon is:
- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5
23. Which of the following activities best promotes the concept of **Symmetry** in a primary classroom?
- (a) Measuring the lengths of sides of various triangles.
 - (b) Folding cut-out paper shapes and observing which folds divide the shape into identical halves.
 - (c) Calculating the area of a circle.
 - (d) Memorizing the names of different angles.
24. A student confuses the place value of the tenths digit (0.1) with the hundreds digit (100). This indicates a foundational weakness in:
- (a) Multiplication algorithms.
 - (b) Understanding the structure of the Hindu-Arabic place value system.
 - (c) Identifying prime numbers.
 - (d) Calculating perimeter.
25. Which number is divisible by 11?
- (a) 1331
 - (b) 1234
 - (c) 1441
 - (d) 1010
26. A person buys 5 items costing 20, 25, 30, 35, 40 units. If the person pays with a 200 unit note, how much change should they receive?
- (a) 150 units
 - (b) 50 units
 - (c) 60 units
 - (d) 70 units

27. If the cost of $\frac{3}{4}$ kg of apples is 90 units, what is the cost of 1 kg of apples?
- (a) 120 units
 - (b) 67.5 units
 - (c) 100 units
 - (d) 80 units
28. The main pedagogical reason for starting measurement lessons with **non-standard units** is:
- (a) To avoid using rulers and measuring tapes entirely.
 - (b) To allow students to discover the necessity and value of standard units through personal comparison and inconsistency.
 - (c) To make the lesson easier by avoiding mathematical calculations.
 - (d) To teach complex fractions quickly.
29. The difference between the largest 3-digit even number and the smallest 3-digit odd number is:
- (a) 897
 - (b) 899
 - (c) 900
 - (d) 998
30. When collecting data about their classmates' favorite fruits, students should be encouraged to use ****tally marks**** primarily because:
- (a) They look mathematically sophisticated.
 - (b) They simplify the counting process and aid in organizing discrete data points.
 - (c) They are the only way to represent data.
 - (d) They help in calculating the arithmetic mean quickly.
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