## CTET Mathematics Practice Test

Paper I (For Classes I–V)

## General Instructions

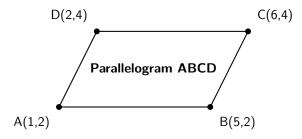
## Practice Test - 20

- 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!

- 1. A number is divided by 8 and the quotient is 12 with a remainder of 3. What is the number?
  - (a) 96
  - (b) 99
  - (c) 100
  - (d) 93

- 2. When designing a mathematics lesson, the most effective way to address \*\*learning difficulties\*\* among diverse learners is by:
  - (a) Giving all students the same advanced problems.
  - (b) Using only one teaching method for consistency.
  - (c) Varying the instructional methods, pace, and assessment tools.
  - (d) Focusing solely on verbal explanations and avoiding visual aids.
- 3. What is the sum of the smallest 5-digit number and the largest 4-digit number?
  - (a) 19999
  - (b) 19000
  - (c) 10999
  - (d) 100000
- 4. A cube has a total surface area of 150 square cm. What is the length of one edge of the cube?
  - (a) 25 cm
  - (b) 5 cm
  - (c) 10 cm
  - (d) 15 cm
- 5. The coordinates of the vertices of a parallelogram are A(1,2), B(5,2), C(6,4), and D(2,4). What is the length of the base AB?



- (a) 4 units
- (b) 5 units
- (c) 6 units
- (d) 3 units
- 6. A water bottle can hold 1.5 liters of water. If a student drinks 350 milliliters from it, how many milliliters of water are left in the bottle?

	<ul> <li>(a) 1150 ml</li> <li>(b) 1250 ml</li> <li>(c) 1050 ml</li> <li>(d) 1350 ml</li> </ul>
7.	If 1 hour = 60 minutes and 1 minute = 60 seconds, then 1 week is equal to:
	<ul><li>(a) 10080 minutes</li><li>(b) 10800 minutes</li><li>(c) 420 minutes</li><li>(d) 7200 minutes</li></ul>
8.	In the context of mathematics pedagogy, **mathematization** primarily involves:
	<ul><li>(a) Memorizing all mathematical theorems and formulas.</li><li>(b) Using mathematical concepts and processes to understand and solve real-world problems.</li></ul>
	<ul><li>(c) Focusing only on abstract calculation speed.</li><li>(d) Replacing all problem-solving with calculator use.</li></ul>
9.	What is the fractional equivalent of 0.625 in its simplest form? (a) $\frac{5}{8}$
	(b) $\frac{3}{5}$ (c) $\frac{1}{2}$ (d) $\frac{7}{12}$
10.	The total cost of 4 pens and 3 notebooks is 150 units. If the cost of one pen is 15 units, what is the cost of one notebook?
	<ul><li>(a) 20 units</li><li>(b) 30 units</li><li>(c) 40 units</li><li>(d) 50 units</li></ul>
11.	Which number is the smallest common multiple of 4, 6, and 8?  (a) 48  (b) 24

- (c) 12
- (d) 36
- 12. A teacher observes a student having difficulty with the concept of division as \*\*repeated subtraction\*\*. The most suitable visual aid for remedial work would be:
  - (a) A protractor.
  - (b) Base Ten Blocks to model grouping and removal.
  - (c) A calendar.
  - (d) A multiplication chart.
- 13. Simplify the expression:  $\frac{1}{3} \times \left(\frac{1}{2} + \frac{1}{6}\right)$ 
  - (a)  $\frac{2}{9}$
  - (b)  $\frac{1}{9}$
  - (c)  $\frac{4}{9}$
  - (d)  $\frac{1}{3}$
- 14. Which pattern describes the sequence: 2, 6, 18, 54, ...
  - (a) Add 4
  - (b) Multiply by 3
  - (c) Add 4, Add 12, Add 36, ...
  - (d) Square of the preceding number
- 15. A square piece of land has a side length of 20 meters. If the cost of fencing is 50 units per meter, what is the total cost of fencing the land?
  - (a) 1000 units
  - (b) 2000 units
  - (c) 4000 units
  - (d) 5000 units
- 16. Which of the following is an example of an **associative property** in addition?
  - (a) 5 + 0 = 5
  - (b) 5+3=3+5
  - (c) (5+3)+2=5+(3+2)

- (d)  $5 \times (3+2) = 5 \times 3 + 5 \times 2$
- 17. What is the difference in place values of the digit '9' in the numbers 981 and 198?
  - (a) 900
  - (b) 810
  - (c) 90
  - (d) 99
- 18. The use of a \*\*Geoboard\*\* in a primary mathematics classroom is most effective for teaching concepts related to:
  - (a) Basic arithmetic operations.
  - (b) Measurement of volume.
  - (c) Perimeter, area, and properties of 2D shapes.
  - (d) Time and speed.
- 19. A man starts his journey at 9:45 AM and arrives at his destination at 3:10 PM on the same day. What is the total duration of his journey?
  - (a) 5 hours 25 minutes
  - (b) 5 hours 35 minutes
  - (c) 6 hours 25 minutes
  - (d) 6 hours 35 minutes
- 20. A data set of students' heights in cm is collected: 120, 125, 120, 130, 125, 120. What is the mode of this data set?
  - (a) 125
  - (b) 130
  - (c) 120
  - (d) 123
- 21. In the fraction  $\frac{3}{5}$ , if the numerator is increased by 2, and the denominator is decreased by 1, the new fraction is:
  - (a)  $\frac{5}{4}$
  - (b)  $\frac{1}{4}$
  - (c)  $\frac{4}{5}$

- (d)  $\frac{5}{6}$ 22. Which set of coordinates forms a straight line segment parallel to the X-axis? (a) (1,1),(3,4)(b) (2,5),(2,8)(c) (4,6), (7,6)(d) (0,0),(5,5)23. Which of the following is **not** a good reason for the use of nonstandard units (like hand-span, foot-length) in introductory measurement lessons? (a) To motivate students to learn about the need for standard units. (b) To connect measurement to real-life contexts. (c) To provide highly accurate, standardized results. (d) To highlight the concept of measurement itself. 24. What is the value of  $(0.7 \times 0.7) - (0.3 \times 0.3)$ ? (a) 0.4 (b) 0.49 (c) 0.4(d) 0.725. If a number is tripled and then 7 is subtracted, the result is 11. What is the number? (a) 6 (b) 7
- 26. Which of the following is a composite number that is also an odd number?
  - (a) 17

(c) 8

(d) 4

- (b) 21
- (c) 23
- (d) 2

- 27. Which of the following illustrates a focus on **conceptual under-standing** in mathematics assessment?
  - (a) Asking students to list the multiplication tables up to 10.
  - (b) Asking students to solve an unfamiliar word problem that requires applying a known principle.
  - (c) Conducting a speed test on simple arithmetic facts.
  - (d) Checking if the final answer matches the key, regardless of the method used.
- 28. A box contains 340 pencils. If the pencils are equally distributed among 17 students, how many pencils does each student receive?
  - (a) 20
  - (b) 2
  - (c) 17
  - (d) 18
- 29. The process of \*\*Venn Diagram Basics (informal)\*\* in the primary syllabus is mainly designed to teach:
  - (a) Complex statistical modeling.
  - (b) Classification, sorting, and set relationship concepts.
  - (c) Abstract graph theory.
  - (d) Advanced geometrical proofs.
- 30. If a road sign indicates a distance of 4 km500 meters, what is this distance when written entirely in meters?
  - (a) 4050 meters
  - (b) 450 meters
  - (c) 4500 meters
  - (d) 4005 meters