

CTET Mathematics Practice Test

Paper I (For Classes I–V)

General Instructions

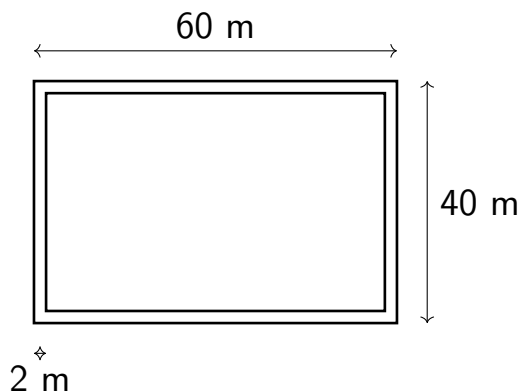
Practice Test - 05

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. Find the value of x if $5x - 7 = 3x + 9$.
 - (a) 6
 - (b) 7
 - (c) 8
 - (d) 9
2. The sum of interior angles of a regular pentagon is:

- (a) 360°
 (b) 540°
 (c) 720°
 (d) 900°
3. A number is increased by 25% and then decreased by 20%. The net percentage increase or decrease is:
 (a) 0%
 (b) 2% increase
 (c) 5% decrease
 (d) 10% increase
4. A fruit seller sells mangoes at a loss of 10%. If he increases the selling price by Rs. 5 per mango, he gains 10%. The cost price of one mango is:
 (a) Rs. 20
 (b) Rs. 22.50
 (c) Rs. 25
 (d) Rs. 27.50
5. The HCF and LCM of two numbers are 18 and 360 respectively. If one number is 72, the other is:
 (a) 60
 (b) 80
 (c) 90
 (d) 100
6. A rectangular garden is 60 m long and 40 m wide. Paths of equal width 2 m are built inside along all sides. Find the area of the remaining garden.



- (a) 2120 m^2
 - (b) 2112 m^2
 - (c) 2144 m^2
 - (d) 2160 m^2
7. The average of 7 consecutive numbers is 13. Find the smallest number.
- (a) 9
 - (b) 10
 - (c) 11
 - (d) 12
8. The difference between the simple and compound interest on Rs. 5000 for 2 years at 10% p.a. is:
- (a) Rs. 45
 - (b) Rs. 50
 - (c) Rs. 55
 - (d) Rs. 60
9. If $\sqrt{x+5} = 9$, find x .
- (a) 76
 - (b) 81
 - (c) 86
 - (d) 91
10. A train 150 m long passes a man standing on a platform in 12 seconds. Its speed in km/h is:
- (a) 36
 - (b) 42
 - (c) 45
 - (d) 48
11. In $\triangle ABC$ with vertices A(2,3), B(6,3), C(6,7), find the area of the triangle.
- (a) 8 sq units
 - (b) 12 sq units

- (c) 16 sq units
 - (d) 20 sq units
- 12.** The coordinates of the midpoint of the line joining $(-2, 4)$ and $(6, 8)$ are:
- (a) $(1, 6)$
 - (b) $(2, 5)$
 - (c) $(3, 6)$
 - (d) $(4, 7)$
- 13.** The distance between points $P(-3, 2)$ and $Q(4, 6)$ is:
- (a) 6 units
 - (b) 7 units
 - (c) 8 units
 - (d) 9 units
- 14.** The perimeter of a semicircle of radius 7 cm is:
- (a) 22 cm
 - (b) 29 cm
 - (c) 36 cm
 - (d) 44 cm
- 15.** The diagonals of a rhombus are 24 cm and 32 cm. Find its side.
- (a) 15 cm
 - (b) 17 cm
 - (c) 20 cm
 - (d) 25 cm
- 16.** The sum of first 20 natural numbers divisible by 3 is:
- (a) 540
 - (b) 570
 - (c) 600
 - (d) 630
- 17.** Two numbers are in ratio 4 : 5 and their LCM is 180. Find the numbers.
- (a) 36 and 45

- (b) 24 and 30
 - (c) 40 and 50
 - (d) 32 and 40
- 18.** A solid metallic cylinder of radius 3 cm and height 7 cm is melted to form small spheres of radius 1 cm. Find the number of spheres formed.
- (a) 12
 - (b) 18
 - (c) 21
 - (d) 27
- 19.** The mean of five numbers is 27. If one number is excluded, the mean of remaining four numbers becomes 25. Find the excluded number.
- (a) 32
 - (b) 35
 - (c) 37
 - (d) 40
- 20.** The n th term of a sequence is given by $T_n = 3n + 2$. Find the 15th term.
- (a) 45
 - (b) 47
 - (c) 50
 - (d) 53
- 21.** A dice is thrown once. The probability of getting a number less than 4 is:
- (a) $\frac{1}{2}$
 - (b) $\frac{1}{3}$
 - (c) $\frac{2}{3}$
 - (d) $\frac{1}{4}$
- 22.** If $(a + b)^2 = 25$ and $ab = 6$, find $a^2 + b^2$.
- (a) 13
 - (b) 19
 - (c) 25
 - (d) 37

- 23.** In a constructivist classroom, the role of the teacher is mainly to:
- (a) Deliver information
 - (b) Facilitate active learning experiences
 - (c) Conduct rote drills
 - (d) Correct errors continuously
- 24.** When a teacher gives problems that can be solved by multiple methods, she promotes:
- (a) Procedural fluency
 - (b) Conceptual flexibility
 - (c) Mechanical computation
 - (d) Memorization
- 25.** Formative assessment in mathematics aims at:
- (a) Promoting learning through feedback
 - (b) Ranking students
 - (c) Certifying achievements
 - (d) Preparing report cards
- 26.** Manipulatives like beads and blocks are used in teaching primary mathematics to:
- (a) Encourage rote memorization
 - (b) Support concrete understanding of concepts
 - (c) Speed up symbolic learning directly
 - (d) Reduce teacher explanation
- 27.** A teacher asks students to explain how they got their answers. This primarily develops:
- (a) Speed
 - (b) Accuracy
 - (c) Mathematical reasoning and communication
 - (d) Memorization
- 28.** Error analysis in mathematics helps a teacher to:
- (a) Grade students fairly

- (b) Identify conceptual gaps and plan remediation
 - (c) Increase classroom competition
 - (d) Delay feedback
- 29.** A child understands “half of an apple” but fails to recognize “half of 10”. This shows difficulty in:
- (a) Symbolic representation of fraction
 - (b) Visual representation of shapes
 - (c) Comparing quantities
 - (d) Understanding ratio
- 30.** Inclusive mathematics teaching primarily focuses on:
- (a) Uniform pace for all learners
 - (b) Differentiated learning experiences
 - (c) Using only textbook exercises
 - (d) Strict testing for every child