

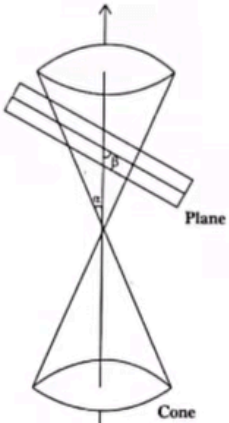
KCET Mathematics Answer Key 2026 (Unofficial)

Questions	KCET Answer Key 2026 (Maths)
<p>1. Let R be the relation in the set N (natural numbers) given by $R = \{(a, b) : a = b - 2, b > 6\}$. Which of the following is correct?</p> <p>(1) $(2, 4) \in R$ (2) $(3, 8) \in R$ (3) $(6, 8) \in R$ (4) $(8, 7) \in R$</p>	(3) $(6, 8) \in R$
<p>2. The mean and standard deviation of 100 items are 50 and 4, respectively. Then the sum of the squares of the items is:</p> <p>(A) 251600 (B) 250000 (C) 261600 (D) 256000</p>	(2) 251600
<p>3. The corner points of the feasible region are $(0, 10), (5, 5), (15, 15), (0, 20)$. Let $Z = px + qy$ where $p, q > 0$. The condition on p and q so that the maximum z occurs at both points $(15, 15)$ and $(0, 20)$ is:</p> <p>(1) $p = q$ (2) $p = 2q$ (3) $q = 2p$ (4) $q = 3p$</p>	(4) $q = 3p$
<p>4. $\tan^{-1} \left(\frac{1}{1+1+1^2} \right) + \tan^{-1} \left(\frac{1}{1+2+2^2} \right) + \dots + \tan^{-1} \left(\frac{1}{1+n+n^2} \right)$ is:</p>	(3) $\tan^{-1} [n/n+1]$
<p>5. Question: If α and β are acute angles such that $\tan \alpha$ and $\tan \beta$ satisfy $\tan^2 \theta - 4 \tan \theta + 1 = 0$, then α and β are respectively:</p>	(1) 45 degree, 30 degree
<p>6. In Linear Programming Problem (LPP), the objective function $Z = ax + by$ has the same maximum value at two corner points. The number of points at which Z occurs is</p>	(4) Infinity

7. Probability of obtaining an even prime number on each die when a pair of dice is rolled is	(4) 1/36
8. The probability that a man and his wife live after 20 years is 1/4 and 1/3, respectively. The probability that neither the man nor his wife lives for 20 years is	(4) 1/2
9. Which of the following is correct? (1) Determinant is a square matrix (2) Determinant is a number associated to a matrix (3) Determinant is a unique number associated to a square matrix (4) Determinant is not defined for a square matrix	(3) Determinant is a unique number associated to a square matrix
10. Let X be a matrix of order 2 x n and Y be a matrix of order 2 x p. If np, then the order of the matrix 8X-9Y. is	(1) 2 x n
11. If A and B are invertible matrices of same order, then which of the following is not correct? (1) A. (adj A) (adj A). A=AI (2) A(adj A) = (adj A). A = [A] I (3) (AB) ⁻¹ = B ⁻¹ A ⁻¹ (4) A ≠ 0, B ≠ 0	(1) A. (adj A) (adj A). A=AI
12. The system of equations x + 2y = 3 and 2x + 3y = 3 has (1) No solution (2) Unique solution (3) Infinite solutions (4) Only two solutions	(2) Unique solution
13. If $\vec{a} = 2\hat{i} + 2\hat{j} - \hat{k}$, $\vec{b} = \alpha\hat{i} + \beta\hat{j} + 2\hat{k}$ and $ \vec{a} + \vec{b} = \vec{a} - \vec{b} $	(4) 1
14. If $\vec{a} = \hat{i} + \hat{j} + \hat{k}$, $\vec{b} = \hat{j} - \hat{k}$ and $\vec{a} \times \vec{c} = \vec{b}$, $\vec{a} \cdot \vec{c} = 3$,	(3) $\frac{5}{3}\hat{i} + \frac{2}{3}\hat{j} + \frac{2}{3}\hat{k}$
15. The value of λ for which the vectors $\vec{a} = 2\hat{i} + \lambda\hat{j} + \hat{k}$ and \vec{b}	(2) -5/2

<p>16. If A and B are invertible square matrices of order n, then which of the following is not correct?</p> <p>(1) $\det(AB) = \det(A) \cdot \det(B)$ (2) $\det(kA) = k \det(A)$ (3) $\det(A + B) = \det(A) + \det(B)$ (4) $\det(A^{-1}) = 1/\det(A)$</p>	<p>(3) $\det(A + B) = \det(A) + \det(B)$</p>
<p>17. The area of the triangle with vertices (3, 8), (-4, 2) and (5, 1) is, then the value of P is</p>	<p>(3) 122</p>
<p>18. Consider the following statements: Statement I: If A is a non-singular matrix, then A^{-1} exists. Statement II: If A and B are symmetric matrices of same order, then $(ABBA)$ is a skew-symmetric matrix Choose the correct option.</p> <p>(1) Statement I is true and Statement II is false (2) Statement I is false and Statement II is false (3) Statement I is true and Statement II is true (4) Statement I is false and Statement II is true</p>	<p>(3) Statement I is true and Statement II is true</p>
<p>19. A row matrix has only</p> <p>(1) One element (2) One row with one or more columns (3) One column with one or more rows (4) One row and one column</p>	<p>(2) One row with one or more columns</p>
<p>20. The angle between the lines whose direction ratios are a, b, c and b-c, c-a, a-b is</p>	<p>(1) 90 degree</p>
<p>21.</p> <p>The measure of the angle between the lines $x = k + 1, y = 2k - 1,$ $\frac{x-1}{2} = \frac{y-2}{1} = \frac{z-3}{1}$ is</p>	<p>(2) $\cos^{-1} [\sqrt{2}/3]$</p>
<p>22.</p> <p>$\sum_{n=1}^4 (\sqrt{-1})^{2n} =$ _____</p>	<p>(3) 0</p>
<p>23. The solution of $3(x-1) < 2(x-3)$ is</p>	<p>(1) $x < -3$</p>

<p>24. 10 distinct points are taken on a circle. Then using these points Statement 1: The number of triangles that can be formed is 100 Statement II: The number of chords that can be formed is 45 Which of the following is correct? (1) Both Statement I and Statement II are true (2) Both Statement 1 and Statement II are false (3) Statement I is true and Statement It is false (4) Statement I is false and Statement II is true</p>	<p>(4) Statement I is false and Statement II is true</p>
<p>25. How many ways can you arrange all the letters and numbers in "KCET 2025" which start with K and end with 5?</p>	<p>(1) 720</p>
<p>26. The value at $x = 2$ for $\frac{x^3 + 3x^2 + 3x + 1}{x^4 + 4x^3 + 6x^2 + 4x + 1} =$ _____</p>	<p>(3) 1/3</p>
<p>27. Recent studies suggest that 12% of the world population is left handed. Depending on parents" hand usage, the chances of having left handed children are as follows: A: Both parents are left handed, chances of having left handed children- 24% B: Both parents are right handed, chances of having left handed children = 9% C: Father left handed and mother right handed, chances of having left handed children = 17% D: Father right handed and mother left handed, chances of having left handed children 22% 1/4 and L denotes child is left handed. What is the Given P(A), P(B), P(C), P(D) probability that P(AL)?</p>	<p>(3) 1/3</p>
<p>28. If we insert two numbers between 2 and 4 so that the resulting sequence is in G.P, then the inserted numbers in the order are</p>	<p>(2) 2, $\sqrt{8}$</p>

<p>29.</p> <p>Match List-I with List-II</p> <table border="0"> <thead> <tr> <th style="text-align: left;">List-I</th> <th style="text-align: left;">List-II</th> </tr> </thead> <tbody> <tr> <td>a) A matrix which is not a square matrix ^{NS}</td> <td>i) Symmetric matrix</td> </tr> <tr> <td>b) A square matrix $A^t = A$</td> <td>ii) Null matrix</td> </tr> <tr> <td>c) The diagonal elements of a diagonal matrix are same</td> <td>iii) Rectangular matrix</td> </tr> <tr> <td>d) A matrix which is both symmetric and skew symmetric</td> <td>iv) Scalar matrix</td> </tr> </tbody> </table>	List-I	List-II	a) A matrix which is not a square matrix ^{NS}	i) Symmetric matrix	b) A square matrix $A^t = A$	ii) Null matrix	c) The diagonal elements of a diagonal matrix are same	iii) Rectangular matrix	d) A matrix which is both symmetric and skew symmetric	iv) Scalar matrix	<p>(3) a-iii b-i c-iv d-ii</p>
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<p>30.</p> <p>Integrating factor of the differential equation $(1 - x^2) \frac{dy}{dx} - y$</p>	<p>(2) $1/\log 1-x^2$</p>										
<p>31. The line L, joining the two points (-1, 2) and (3, 6) divides the line L, which passes through (3, -1) in the ratio 1:3 internally, then the equation of L, is</p> <p>(1) $4x - 3y - 9 = 0$ (2) $4x - 3y + 9 = 0$ (3) $4x + 3y - 9 = 0$ (4) $4x + 3y + 9 = 0$</p>	<p>(3) $4x + 3y - 9 = 0$</p>										
<p>32.</p> <p>In the figure</p> <p>Statement I : When $\alpha > \beta \geq 0$, the section is hyperbola</p> <p>Statement II : When $\beta > 90^\circ$, the section is ellipse</p> 	<p>(1) Statement I is true, Statement II is false</p>										

<p>33. The three points A (2, 4, 3), B (4, a, 9) and C (10, -1, 7) form a right-angled triangle with $\angle B=90^\circ$, then the value of "a" is</p> <p>(1) 1 or 4 (2)-1 or 4 (3)1or-4 (4)-1 or-4</p>	<p>(2) -1 or 4</p>
<p>34. If $\lim_{x \rightarrow 3} \left(\frac{x^2 - ax - 3b}{x - 3} \right) = 5$, then $a + b =$</p>	<p>(3) 3</p>
<p>35. If $f(x) = \begin{cases} x^2 - 1 & \text{if } x \geq 2 \\ x + 1 & \text{if } x < 2 \end{cases}$, then $\lim_{x \rightarrow 1} f(x) + \lim_{x \rightarrow 2} f(x) =$</p>	<p>(3) 7</p>
<p>36. If $y = \sqrt[3]{\tan x + y}$, then $\frac{dy}{dx} =$</p>	<p>(2) $\sec^2 x / 3y - 1$</p>
<p>37. If $f(x) = \begin{cases} ax + 7 & \text{if } x < 1 \\ 3x - 1 & \text{if } x = 1 \\ \frac{x + 3}{b} & \text{if } x > 1 \end{cases}$ is continuous at $x = 1$, then</p>	<p>(4) $a = -5, b = 2$</p>
<p>38. In a Mahakumbh, a drone camera is moving along $3y = x^3 - 3$ When y-coordinate changes 9 times as fast as x-coordinate, it captures good quality pictures. Then one of the precise positions of the drone at that instant is</p>	<p>(3) (3, 8)</p>
<p>39. A Youtube short video is getting viral according to $f(t) = -2t^3 + 3t^2 + 5$ At what time does the video get maximum number of shares? (t is in hours)</p>	<p>(1) 1</p>
<p>40. The area of the region bounded by the curve $y^2 = x^3$ the y-axis and the lines $y = 1$ and $y = 8$ is</p>	<p>(2) $93/5$ sq. units</p>