

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	A. Scalar matrix B. Identity matrix C. Null matrix D. Symmetric matrix
3	Question Image	
4	The mid point of the line segment joining the points A(-8,3) and B(2,-1) is	A. (-3,1) B. (-6,2) C. (5,2) D. (-5,2)
5	Question Image	
6	Question Image	A. c/a B. $-c/a$ C. b/a D. $-b/a$
7	Question Image	
8	Question Image	D. both a & c
9	If the angle of a triangle are in the ratio 2 : 3 : 7, the triangle is	A. Obtuse B. Acute C. Right angle D. Isosceles
10	Empty set is	A. Not subset of every set B. Finite set C. Infinite set D. Not the member of real numbers
11	The set $(\mathbb{Z}, +)$ forms a group	A. Forms a group w.r.t addition B. Forms a group w.r.t multiplication C. Non commutative group w.r.t multiplication D. Doesn't form a group
12	The sum of the roots of the equation $x^2 - 6x + 2 = 0$ is	A. -6 B. 2 C. -2 D. 6
13	Cofactor of an element a_{ij} denoted by A_{ij} is	A. $(-2)^{i+j}$ B. M_{ij} C. $(-1)^{i+j} M_{ij}$ D. None of above
14	Question Image	
15	Question Image	
16	$f(x) = 2^x + 3 \cdot 2^{2x} + 5$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
17	$i =$	A. $\sqrt{1}$ B. $\sqrt{2}$ C. $\sqrt{-2}$ D. $\sqrt{-1}$
18	A function from X to X is denoted as	B. $f : X \text{ to } Y$ D. $f : Y \text{ to } Y$
19	Question Image	A. $b \cot \alpha + \tan \alpha$

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A tower subtends an angle α at a point on the same level as the root of the tower and at a second point, b meters above the first, the angle of depression of the foot of the tower is β . The height of the tower is

- $\frac{b \tan \alpha}{\tan \alpha - \tan \beta}$
- $b \tan \alpha$
- $b \tan \alpha \cot \alpha$
- None of these