

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	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
2	The set of real roots of the equation $\log_{(5x+4)}(2x+3)^3 - \log_{(2x+3)}(10x^2+23x+12) = 1$ is	A. $\{-1\}$ B. $\{-3/5\}$ C. Empty set D. $\{-1/3\}$
3	Range of $\tan x$ is _____	A. $[-1, -]$ B. \mathbb{R} C. Negative real numbers D. $\mathbb{R} - \{x \mid -1 \leq x \leq 1\}$
4	Question Image	
5	Domain of $\cot x$ is _____	
6	$7^{2n} + 3^{n-1} \cdot 2^{3n-3}$ is divisible by	A. 24 B. 25 C. 9 D. 13
7	Question Image	A. 1 B. 0 C. -1 D. 2
8	Question Image	
9	$\sin(\pi+\theta) =$ _____;	A. $\sin\theta$ B. $\cos\theta$ C. $-\sin\theta$ D. $-\cos\theta$
10	Question Image	A. 0 B. 1 C. -1 D. None of these
11	Which element is the additive inverse of (a, b) in Complex numbers?	A. $(a, 0)$ B. $(0, b)$ C. (a, b) D. $(-a, -b)$
12	Equation of the chord of contact to the tangents drawn from $(-3, 4)$ to the circle $x^2 + y^2 = 21$	A. $-3x + 4y = 21$ B. $4x - 3y = 0$ C. $-3x + 4y = 25$ D. None of these
13	The expansion of $(1 - 3x)^{-1}$ is valid if	A. $ x < 1$ B. $ x < 3$ C. $ x < 1/3$ D. None of these
14	Question Image	
15	Question Image	A. A B. A' C. U D. A A'
16	What is the number of elements of the power set of $\{0, 1\}$	A. 1 B. 2 C. 3 D. 4
17	A circle which touches one side of a triangle externally and the other two sides produced is called	A. In-circle B. Circumcircle C. e-circle D. Point circle
		A. $-2x \cos x ²$

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Question Image

- B. $-2x^2 \sin x^2$
- C. $-x^2 \sin x$
- D. $-2x^2 \sin x^2$

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$$\sin(\alpha + \beta) - \sin(\alpha - \beta) =$$

- A. $4 \cos \alpha \sin \beta$
- B. $2 \cos \alpha \sin \beta$
- C. $4 \cos \alpha \cos \beta$
- D. $4 \sin \alpha \sin \beta$

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If $3x^4 + 4x^3 + x^5$ is divided by $x+1$, which of the following is the remainder

- A. 7
- B. -2
- C. 6
- D. 1