

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
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| 1 | The point on $y^2 = 4ax$ nearest to the focus has its abscissa equal to | A. -a B. a C. $a/2$ D. 0 |
| 2 | The area enclosed between the graph $y = x^2 - 4x$ and the x-axis is: | A. $20/3$ B. $41/3$ C. $32/3$ D. $25/3$ |
| 3 | The expansion of $(1 - 3x)^{-1}$ is valid if | A. $ x < 1$ B. $ x < 3$ C. $ x < 1/3$ D. None of these |
| 4 | The line $2x + \sqrt{6}y = 2$ is a tangent to the curve $x^2 - 2y^2 = 4$. The point of contact is | A. $(\sqrt{6}, 1)$ B. $(2, 3)$ C. $(7, -2\sqrt{6})$ D. $(4, -\sqrt{6})$ |
| 5 | For $n \in \mathbb{N}$, $2^n > n$ is true only when | A. $n < 2$ B. $n \leq 4$ C. $n \geq 4$ |
| 6 | $(f \circ g)'(x) = f'(g(x))g'(x)$ is derivative by | A. Chain rule B. Reciprocal rule C. Power rule D. Product rule |
| 7 | The parabola $y^2 + 2y + x = 0$ lies in _____ quadrant. | A. First B. Second C. Third D. Fourth |
| 8 | Question Image | C. $2x$ D. 2 |
| 9 | $2\pi + \theta$ will have terminal side in Quad | A. I B. II C. III D. IV |
| 10 | $\forall a, b \in \mathbb{R}$, $ab = ba$ is a | A. Commutative law of multiplication B. Closure law of multiplication C. Associative law of multiplication D. Multiplicative identity |
| 11 | If $\cos \theta = 0$, then $\theta =$ _____ | A. $n\pi$ B. $(2n + 1)\pi$ C. $(2n - 1)\pi$ D. $(4n + 1)\pi$ |
| 12 | When a selection of objects is made without paying regard to the order of selection, it is called | A. Sequence B. Series C. Combination D. Permutation |

D. Permutation

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| 13 | Question Image | A. Associative law of addition B. Commutative law of addition C. Additive identity D. Closure law of addition |
| 14 | Question Image | |
| 15 | The center of the sphere which passes thro' (a, 0, 0), (0, b, 0), (0, 0, c) and (0, 0, 0) is | |
| 16 | If p and q are two statements then their biconditional 'p if q' is denoted by | |
| 17 | Which of the following is a scalar | A. displacement B. velocity C. acceleration D. density |
| 18 | The system of measurement in which the angle is measured in degrees, minutes and seconds is called the | A. circular system B. CGS system C. sexagesimal system D. none of these |
| 19 | Question Image | |
| 20 | $\int \sin(ax+b) dx$ is equal to: | A. $\frac{1}{2a} \cos(ax+b)$ B. $-\frac{1}{a} \cos(ax+b)$ C. $\frac{1}{a} \cos(ax+b)$ D. $\frac{1}{a} \ln(ax+b)$ |