

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Name the property used in $4 + 9 = 9 + 4$	A. Associative property of addition B. Commutative property of addition C. Distributive property D. Additive identity
2	If $A = \{x/x \text{ is a positive integer and } 4 \leq x < 23\}$, then $A =$	A. $\{1, 2, 3, 4, 5, 6, 7\}$ B. $\{4, 5, 6, \dots, 22\}$ C. $\{1, 2, 3, \dots, 23\}$ D. $\{1, 2, 3, 4, 5\}$
3	$\forall x \in (a, b), f(x)$ is increasing if	A. $f'(x) > 0$ B. $f'(x) < 0$ C. $f''(x) > 0$ D. $f''(x) = 0$
4	The coefficient of x^n in the expansion of $(1-x)^{-1}$ is	A. $(-1)^{n+1}$ B. 1 C. $(-1)^{n(n+1)}$ D. $(n+1)$
5	Question Image	A. 0 B. 1 D. -1
6	If $ax + bx + c = 0$ is satisfied by every value of x , then	A. $b = 0, c = 0$ B. $c = 0$ C. $b = 0$ D. $a = b = c = 0$
7	What is the number of elements of the power set of $\{ \}$	A. 0 B. 1 C. 2 D. 3
8	Question Image	
9	Question Image	
10	If a force $F = 2i + j + 3k$ acts at point $(1, -2, 2)$ of a body then the moment of F about a pint lying on the line of action of the force is	A. 5 B. Equal to the moment of the force about origin C. 0 D. Cannot be found
11	Question Image	
12	If the roots of $ax^2 + bx + c = 0$ are equal in magnitude but opposite in sign, then	A. $a = 0$ B. $b = 0$ C. $c = 0$ D. None of these
13	The area under the curve $y = 1/x^2$ between $x = 1$ and $x = 4$ is:	A. -25 B. 0.75 C. -0.35 D. -10
14	If $\theta = 60^\circ$ then	A. $\sin \theta = \frac{1}{2}$ B. $\tan \theta = \cot 30^\circ$ C. $\sin \theta = \frac{1}{2}$ D. $\tan \theta = \cot 30^\circ$

34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);"><i>π</i>/4
D. sec<i>θ</i>= 4

15	Question Image	A. 1 B. 0 C. 3 D. -1
16	If $\sin x + \sin^2 x = 1$, then the value of $\cos^{12} x + 3\cos^{10} x + 3\cos^8 x + \cos^6 x + 2\cos^4 x + \cos^2 x - 2$ is equal to	A. 0 B. 1 C. 2 D. $\sin^2 x$
17	What is the value of $\cos(\cos^{-1} 2)$?	A. $\sqrt{2}$ B. $1/2$ C. undefined D. 0
18	The range of inequality $x + 2 > 4$ is	A. (-1, 2) B. (-2, 2) C. (1, ∞) D. None
19	The tangents drawn from the point P to a circle are real and coincident if	A. P is on the circle B. P is inside the circle C. P is outside the circle D. none of these
20	The vertex of the standard position angles lies on	A. (0,0) B. (0,1) C. (1,0) D. (1,1)