

GAT Subject Mathematics MCQ's Test

Sr	Questions	Answers Choice
1	$\omega^{88} = ?$	<p>A. A and B are multiplicative inverse of each other</p> <p>B. A and B are additive inverses of each other</p> <p>C. A and B are singular matrices</p> <p>D. A and B are equal</p>
2	The set (Q, .)	<p>A. Infinite set</p> <p>B. Singleton set</p> <p>C. Two points set</p> <p>D. None</p>
3	Two natural numbers whose sum is 25 and difference is 5, are	<p>A. 25, 20</p> <p>B. 20, 10</p> <p>C. 20, 5</p> <p>D. 15, 10</p>
4	The point (-5,3) is the center of a circle and P(7,-2) lies on the circle the radius of the circle is	<p>A. 2</p> <p>B. 13</p> <p>C. 7</p> <p>D. 8</p>
5	In 30,60,90 triangle if the smallest side is 6 then the side opposite to the angle of 60° is	<p>A. 12</p> <p>B. 3</p> <p>C. $6\sqrt{3}$</p> <p>D. 6</p>
6	The equation of two polynomials P(x)/Q(x) where Q(x) $\neq 0$ with no common factor is called	<p>A. 12</p> <p>B. 1</p> <p>C. 10</p> <p>D. -10</p>
7	The end points of the major axis of the ellipse are called its	<p>A. foci</p> <p>B. Vertices</p> <p>C. Co-vertices</p> <p>D. eccentricity</p>
8	$\text{Cot } 360^\circ = \underline{\hspace{2cm}}$.	<p>A. Undefined</p> <p>B. 0.707</p> <p>C. -0.5</p> <p>D. 0</p>
9	The complement of set A relative to universal set U is the set	<p>A. X</p> <p>B. X</p> <p>C. ϕ</p> <p>D. Universal set</p>
10	Domain of $\text{Cosec } \theta$ is	<p>A. is R but $\theta = n\pi$</p> <p>B. is R but $\theta \neq n\pi$</p> <p>C. is R but $\theta \neq 2n\pi$</p> <p>D. is R but $\theta \neq n\pi/2$</p>
11	If $\sin \theta = 3/5$ $\text{Cos } \theta =$	<p>A. 1/2</p> <p>B. 3/5</p> <p>C. 4/5</p> <p>D. 1</p>
12	If $2 \sin x \cos 2x = \sin x$ then?	<p>A. $X = n\pi + \pi/6$</p> <p>B. $X = n\pi + \pi/3$</p> <p>C. $X = n\pi + 1$</p> <p>D. $X = n\pi + \pi/2$</p>
13	$F(x) = xx$ decreases in the interval	<p>A. (0, e)</p> <p>B. (0, 1)</p> <p>C. $(-\infty, 0)$</p> <p>D. None</p>
14	If $-1 < x < 0$, which of the following statement must be true?	<p>A. $x < x^2 < x^3$</p> <p>B. $x < x^3 < x^2$</p> <p>C. $x^2 < x^3 < x$</p> <p>D. $x^2 < x < x^3$</p>

15	The magnitude of a vector can never be	A. Zero B. Negative C. Positive D. Absolute
16	If $\theta = 60^\circ$ then	A. $\sin \theta = 1/2$ B. $\tan \theta = \cot 30^\circ$ C. $\theta = \pi/4$ D. $\sec \theta = 4$
17	$\sin (2\pi - \theta) = \underline{\hspace{2cm}}$.	A. $\cos \theta$ B. $-\sin \theta$ C. $-\sin \theta$ D. $-\cos \theta$
18	The set of complex numbers forms a group under the binary operation of	A. 0 B. ± 1 C. 1 D. $\{0, 1\}$
19	The set $\{1, -1, i, -i\}$, form a group under	A. addition B. multiplication C. subtraction D. None
20	The range of inequality $x + 2 > 4$ is	A. $(-1, 2)$ B. $(-2, 2)$ C. $(1, \infty)$ D. None