

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The Principal value of $\sin^{-1}(-1/1/2)$	<p>A. <math>\pi/2</math></p> <p>B. <math>-\pi/2</math></p> <p>C. <math>\pi</math></p> <p>D. <math>-\pi</math></p>
2	The liner equation $ax + by = c$ is called _____ of the inequality $ax + by > c$ .	<p>A. Associated equation</p> <p>B. Non-associated equation</p> <p>C. disjoint equation</p> <p>D. Feasible equation</p>
3	Which of the following is a vector	<p>A. length</p> <p>B. momentum</p> <p>C. volume</p> <p>D. speed</p>
4	The interval in which $f(x)=x^3-6x^2+9x$ is increasing	<p>A. <math>1 &lt; x &lt; 3</math></p> <p>B. <math>x &lt; 1</math> and <math>x &gt; 3</math></p> <p>C. <math>x \geq 1</math> and <math>x \leq 3</math></p> <p>D. <math>-\infty &lt; x &lt; \infty</math></p>
5	The radius of the circle $x^2 + y^2 - 6x + 4y + 13 = 0$ , is	<p>A. 1</p> <p>B. 2</p> <p>C. 0</p> <p>D. None of these</p>
6	$\forall a,b, c \in \mathbb{R} \quad ac = bc \Rightarrow a = b, c \neq 0$ is a	<p>A. Symmetric property</p> <p>B. Cancellation property w.r.t multiplication</p> <p>C. Reflexive property</p> <p>D. Transitive property</p>
7	If $e > 1$ , then the conic, is:	<p>A. Ellipse</p> <p>B. Parabola</p> <p>C. Hyperbola</p> <p>D. None of these</p>
8	$6! =$ _____	<p>A. 360</p> <p>B. 720</p> <p>C. 6.5.4</p> <p>D. None of these</p>
9	The value of x and y when $(x + iy)^2 = 5 - 4i$	<p>A. <math>x = 2, y = -1</math></p> <p>B. <math>x = -2, y = 1</math></p> <p>C. <math>x = 2, y = -i</math></p> <p>D. <math>x = 2, y = 2</math></p>
10	If $\cos \theta = 0$ , then $\theta =$ _____	<p>A. <math>n\pi</math></p> <p>B. <math>(2n + 1)\pi</math></p> <p>C. <math>(2n - 1)\pi</math></p> <p>D. <math>(4n + 1)\pi</math></p>

11	Question Image	<p>A. <math>a = a</math>  B. <math>a &lt; a</math>  C. <math>a &gt; a</math>  D. <math>a^{2/2} = a</math></p>
12	$\tan 270^\circ =$ _____;	<p>A. 0  B. 1  C. -1  D. Undefined</p>
13	$\forall a, b, c \in \mathbb{R}$ and $c > 0$ , then	<p>A. <math>a &gt; b \Rightarrow ac &lt; bc</math>  B. <math>a &gt; b \Rightarrow ac &gt; bc</math>  C. <math>a &lt; b \Rightarrow ac &gt; bc</math>  D. None of these</p>
14	The no of term is the expansion of $(a+x)^{n-1}$ is	<p>A. <math>n+1</math>  B. <math>n-1</math>  C. <math>n</math>  D. <math>n-2</math></p>
15	$\sin 5\theta + \sin 3\theta =$ _____;	<p>A. <math>2\sin 4\theta \cos \theta</math>  B. <math>2\cos 4\theta \sin \theta</math>  C. <math>2\cos 4\theta \cos \theta</math>  D. <math>-2\sin 4\theta \sin \theta</math></p>
16	Question Image	<p>A. <math>\cos 3x + c</math>  B. <math>-\cos 3x + c</math></p>
17	If A, G, H are the arithmetic, geometric and harmonic means between a and b respectively then A, G, H are in	<p>A. A. P.  B. G. P.  C. H. P.  D. None of these</p>
18	Range of $\sin x$ is _____	<p>A. <math>[-1, 1]</math>  B. <math>\mathbb{R}</math>  C. Negative real numbers  D. None of these</p>
19	Derivative of strictly increasing function is always	<p>A. Zero  B. Positive  C. Negative  D. Both (A) and (B)</p>
20	Question Image	