

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The roots of the equation will be irrational if $b^2 - 4ac$ is	A. Positive and perfect square <b>B. Positive but not a perfect square</b> C. Negative D. Zero
2	Sine rule for a triangle states that	A. $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ <b>B. <math>\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}</math></b> C. $\frac{a}{\sin A} + \frac{b}{\sin B} + \frac{c}{\sin C}$ D. $\frac{2a}{\sin A} = \frac{2b}{\sin B} = \frac{2c}{\sin C}$
3	The sum of first n even number is	A. $n^2$ <b>B. <math>n(n+1)</math></b> C. $n+1$ D. $n+2$
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Identity matrix B. Diagonal matrix C. Null matrix <b>D. Hermitian matrix</b>
5	An unbiased die is thrown. Then the probability of getting a prime is	<b>A. <math>\frac{1}{2}</math></b> B. $\frac{2}{3}$ C. $\frac{3}{4}$ D. None of these
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 2 B. 4 <b>C. 6</b> D. 8
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	D. none of these
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
10	The interval in which $f(x) = x^3 - 6x^2 + 9x$ is increasing	<b>A. <math>1 &lt; x &lt; 3</math></b> B. $x < 1$ and $x > 3$ C. $x \geq 1$ and $x \leq 3$ D. $-\infty < x < \infty$
11	The physical quantity which possesses both magnitude and direction is called a	A. scalar <b>B. vector</b> C. constant D. none of these
12	For all points (x,y) in first quadrant	A. $x > 0, y < 0$ <b>B. <math>x &gt; 0, y &gt; 0</math></b> C. $x < 0, y < 0$ D. $x < 0, y > 0$
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	<b>A. Proper fraction</b> B. Improper fraction C. Rational fraction D. None of these
14	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. perpendicular vectors <b>B. parallel vectors</b> C. concurrent vectors D. none of these
15	The numbers of $G_1, G_2, G_3, \dots, G_n$ are called n geometric means between a and b is a, $G_1, G_2, G_3, \dots, G_n, b$ are in	A. H.P. B. A.P. <b>C. G.P.</b> D. None of these

16	The expression $x^2 - x + 1$ has	A. One proper linear factor B. No proper linear factor C. Two proper linear factors D. None of these
17	Question Image <input type="text"/>	B. $\sin 2x + c$ C. $-\sin 2x + c$
18	The set of natural numbers is a subset of	A. $\{1, 2, 3, \dots, 100\}$ B. The set of whole numbers C. $\{2, 4, 6, 8, \dots\}$ D. None of these
19	For all positive integral value of $n, 3^n < n!$ , when	A. $n > 6$ B. $n < 6$ C. $n < 11$ D. $n > 11$
20	Question Image <input type="text"/>	