

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. perpendicular vectors B. parallel vectors C. concurrent vectors D. none of these
3	For non-trivial solution $ A $ is	A. $A = 0$ B. $A <sup>t</sup> = 0$ C. $ A  = 0$ D. None of these
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
5	Range of $\cos x$ is _____	A. $[-1, 1]$ B. $\mathbb{R}$ C. Negative real numbers D. $\mathbb{R} - \{x \mid -1 \leq x \leq 1\}$
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 5 C. -5 D. none
7	If $\sin A = \sin B$ , $\cos A = \cos B$ , then the value of $A$ in terms of $B$ is	
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $4x + 1$ B. $4x$ C. $2x <sup>3</sup>$ D. none of these
9	What is the number of elements of the power set of $\{ \}$	A. 0 B. 1 C. 2 D. 3
10	The distance of the point $(a,b)$ from $y$ -axis is	A. $a$ B. $b$ C. $a + b$
11	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 16 B. 256 C. 64 D. 1024
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. 3 C. 9 D. -3
13	If $A(a,b)$ lies on $3x + 2y = 13$ and point $B(b,a)$ lies on $x - y = 5$ then equation of $AB$ is	A. $x - y = 5$ B. $x + y = 5$ C. $x + y = -5$ D. $5x + 5y = 21$
14	Range of $3 \cot x$ is _____	A. $[-1, 1]$ B. $[-3, 3]$ C. $\mathbb{R}$ D. None of these
15	Range of $\cos \theta$ is	
16	$\int \sin(ax+b) dx$ 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. $\frac{1}{a} \ln(ax + b)$
17	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
18	The set of complex numbers forms	A. Commutative group w.r.t addition B. Commutative group w.r.t multiplication C. Commutative group w.r.t division D. Non commutative group w.r.t addition

19 If  $\cos(2 \sin^{-1} x) = 1/9$ , then what is the value of  $x$ ?

- A.  $1/3$
- B.  $-2/3$
- C.  $2/3$
- D.  $2/3, -2/3$

20 The number of divisors of 1029, 1547 and 122 are in

- A. A.P.
- B. G.P.
- C. H.P.
- D. None of these