

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	<input type="text" value="Question Image"/>	D. none of these
2	$\Phi$ set is the _____ of all sets?	A. Subset B. Union C. Universal D. Intersection
3	The general term in the expansion of $(a+x)^n$ is	A. $(r-1)$ th term B. $(r+1)$ th term C. $r$ th term D. none
4	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
5	<input type="text" value="Question Image"/>	A. 2 B. 4 C. 8 D. 16
6	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. $2/3, -2/3$
7	The roots of the equation $ax^2 + bx + c = 0$ are complex/imaginary if	A. $b^2 - 4ac < 0$ B. $b^2 - 4ac = 0$ C. $b^2 - 4ac > 0$ D. None of these
8	$(0,1)$ is in the solution of the inequality	A. $3x + 2y > 8$ B. $2x - 3y < 4$ C. $2x + 3y > 5$ D. $x - 2y < -5$
9	The smallest positive root of the equation $\tan x - x = 0$ lies on	
10	If $a, b, c$ are in arithmetic progression, then $1/a, 1/b, 1/c$ are in	A. A.M B. G.M C. H.M D. G.P
11	For what value of $k$ , $3x - 2y + k = 0$ is tangent to the circle $x^2 + y^2 + 6x - 4y = 0$	A. $k=0$ B. $k=0$ or $26$ C. $k = 26$ D. $k=-13$
12	Second derivative of $y = x^9 + 10x^2 + 2x - 1$ at $x = 0$ is	A. 10 B. 20 C. 12 D. 1
13	At a point 15 meters away from the base of a 15 meters high house, the angle of elevation of the top is	A. $90^\circ$ B. $60^\circ$ C. $30^\circ$ D. $45^\circ$
14	<input type="text" value="Question Image"/>	
15	In set builder notation the set $\{0, 1, 2, \dots, 100\}$ can be written as	
16	<input type="text" value="Question Image"/>	
17	<input type="text" value="Question Image"/>	A. 0 B. 3 C. 9 D. -3
18	<input type="text" value="Question Image"/>	
19	Arithmetic mean between 14 and 18 is	A. 16 B. 17

19 Arithmetic mean between 14 and 16 is

- C. 15
- D. 32

20 If  $x+y+z+\dots+2n = 2n+1 - 1 \forall n \in \mathbb{W}$ , then cube root of  $xyz$  is equal to

- A. 1
- B. 4
- C. 2
- D. 8