

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Period of $\tan 4x$ is _____	
2	Question Image	
3	In how many ways can 5 persons be seated at a round table	A. 5! B. 4! C. 3! D. 120
4	The differential equations of all conis whose axes coincide with the co-ordinate axis is	
5	If A and B are two matrices such that $AB = B$ and $BA = A$ then $A^2 + B^2 =$	A. 2 AB B. 2 BA C. A + B D. AB
6	If $0 = \{1, 3, 5, \dots\}$ , then $n(0) =$	A. Infinite B. Even numbers C. odd integers D. 99
7	If $f(x) = \tan x$ then $f(0)$ is	A. 0 B. 1 C. $1/2$
8	Question Image	A. Zero matrix B. Diagonal matrix C. Column matrix D. Scalar matrix
9	$\tan(2\pi + \theta) =$ _____;	A. $\tan\theta$ B. $-\tan\theta$ C. $\cot\theta$ D. $-\cot\theta$
10	Question Image	
11	Question Image	
12	If $d_1$ is the distance between (0,0) and (1,2) and $d_2$ is the distance between (0,0) and (2,1) then	A. $d_1 \leq d_2$ B. $d_1 < d_2$ C. $d_1 > d_2$ D. none of these
13	Question Image	
14	The set of the first elements of the ordered pairs forming a relation is called its	A. Function on B B. Range C. Domain D. A into B
15	If $a > 0$ , $b > 0$ , $c > 0$ , then the roots of the equation $ax^2 + bx + c = 0$ are	A. Real and negative B. Non-real with negative real parts C. Real and positive D. Nothing can be said
16	$\{x : x \in \mathbb{Z} \text{ and } x < 1\}$ is	A. Singleton set B. A set with two points C. Empty set D. None of these
17	If the sum of co-efficient in the expansion of $(a+b)^n$ is 4096, then the greatest co-efficient in the expansion is	A. 1594 B. 792 C. 924 D. 2924
18	A diagonal matrix in which the diagonal elements are equal is called a	A. Null matrix B. Identity matrix C. Scalar matrix D. Row matrix
19	Roots of the equation $x^2 + 2x + 3 = 0$ are	A. Real and equal B. Real and distinct C. Complex

D. None of these

A.  $W - \{y \mid -1 \leq y \leq 1\}$ B.  $R - \{y \mid -1 \leq y \leq 1\}$ C.  $O - \{y \mid -1 \leq y \leq 1\}$ D.  $R$