

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	The law of sines is	
3	$3x + 4 > 0$ is	A. equation B. identity C. inequality D. none of these
4	Question Image	
5	If A is an event then which of the following is true	A. $P(A) < 0$ B. $0 \leq P(A) \leq 1$ C. $P(A) > 0$ D. None
6	The equation $x^2 + y^2 - 8x + 6y + 25 = 0$ represents	A. A circle B. A pair of straight lines C. A point D. None of these
7	The set of integer is	A. Finite group B. A group w.r.t addition C. A group w.r.t multiplication D. Not a group
8	The number of ways of arranging the letter AAAAA BBB CCC D EE F in a row when no two C's are together is	
9	The 7th term of $(3^8 + 6^4 x)^{11/4}$ is	A. $-19217/3 x^{6/3}$ B. $189/2 6^{4/4} x$ C. $2227/12 x^{3/3}$ D. $-19712/3 x^{6/3}$
10	Question Image	A. n if n is even B. 0 for any natural number n C. 1 if in odd D. None of these
11	The expansion of $(1 + 2x)^{-2}$ is valid if	A. $ x  < 1/2$ B. $ x  < 1$ C. $ x  < 2$ D. $ x  < 3$
12	$(a, b) + (-a, -b) =$	A. (0,0) B. (a, b) C. (-a, -b) D. (1, 1)
13	The number of solution of the equation $\tan x + \sec x = 2 \cos x$ lying in the interval $[0, 2\pi]$ is	A. 0 B. 1 C. 2 D. 3
14	Question Image	A. 9 B. -9 C. 0 D. 1
15	Question Image	
16	If $a^x = b^y = c^z$ and a, b, c are in G.P. then x, y, z are in	A. A.P. B. G.P. C. H.P. D. None of these
17	A subset of set of complex number whose elements are of the form $(a, 0)$ is called	A. Real number B. Complex number C. Rational number D. Irrational number
18	For non-trivial solution $ A $ is	A. non zero B. $A = 0$ C. $ A  = 0$ D. $A = 0$

D.  $At = 0$

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If the focus lies on the y-axis with coordinates  $f(0,a)$  and directrix of the parabola is  $y = -a$ , the equation of parabola is:

A.  $y^2 = -4ax$

B.  $x^2 = 4ay$

C.  $x^2 = -4ay$

D.  $y^2 = 4ax$

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Two matrices A and B are conformable for the product AB if

A. Both A and B are square

B. Both A and B are symmetric

C. Number of rows of A = number of columns of B

D. Number of columns of A = number of rows of B