

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	The synthetic division method is only used to divide a polynomial by	A. quadratic equation B. binomial C. linear equation D. monomial
3	Question Image	
4	$\int x/\sin^2 x \, dx$ is equal to:	A. $x \cot x + \ln \sin x $ B. $-x \cot x - \ln \sin x $ C. $x \cot x - \ln \sin x $ D. $x \cdot \tan x - \ln \sec x $
5	The physical quantity which can be specified by a number alongwith unit is called a	A. scalar B. vector C. constant D. none of these
6	The common point to four standard parabolas	A. Focus B. Centre C. Vertex D. P(x,y)
7	Question Image	
8	If one root of $5x^2 + 13x + k = 0$ be the reciprocal of the other root the value of k is	A. 0 B. 2 C. 1 D. 5
9	The equation of the directrix of the parabola $x^2 = 4ay$ is	A. $x + a = 0$ B. $x - a = 0$ C. $y + a = 0$ D. $y - a = 0$
10	The negative square root of 9 can be written as:	A. $-\sqrt{9}$ B. $\sqrt{9}$ C. $\sqrt{18}$ D. $-\sqrt{18}$
11	Roots of the equation $9x^2 - 12x + 4 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
12	The value of $i^{4n+1}$	A. 1 B. -1 C. i D. $i^{>2</sup>}$
13	If $a = 5i + 2j$ , then $ a  =$	A. $\sqrt{13}$ B. $\sqrt{7}$ C. $1/\sqrt{13}$ D. $\sqrt{29}$
14	Question Image	D. all
15	AB is a vertical pole and C is its middle point. The end A is on the level ground and P is any point on the level ground other than A. the portion CB subtends an angle $\beta$ at P. If $AP : AB = 2 : 1$ then $\beta =$	
16	Question Image	A. $2x + 2y$ B. $4 - x^{>2</sup>}$ C. $-x/y$ D. $x/y$
17	The additive inverse of 0 is	A. 1 B. -1 C. 0 D. Does not exist

18 The point R dividing internally the line joining the points  $P(x_1, y_1)$  and  $Q(x_2, y_2)$  in the ratio  $K_1: K_2$  has the coordinates

- A. Circle
- B. Parabola
- C. Straight line
- D. None of these

19 The geometrical representation of a linear function is

- A.  $\pm(5 - 2i)$
- B.  $\pm(5 + 2i)$
- C.  $(5 - 2i)$
- D. None of these

20 The square root of  $2i - 20i$  is