

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The directrix of $y^2 = -4ax$ is	A. $y = -a$ B. $y = a$ C. $x = a$ D. $x = -a$
2	For different values of k equation $4x+5y = k$ represents	A. Parallel lines B. Lines parallel to x-axis C. Perpendicular lines D. Lines parallel to y-axis
3	Question Image	
4	For $f(x) = x^2 + px + 1$ , if $f(3) = 3$ then $P =$	A. $3/7$ B. $-2/5$ C. $-7/5$ D. $-7/3$
5	Question Image	
6	The solution set of $x^2 - 5x + 6 = 0$ is	A. $\{1, 3\}$ B. $\{2, 3\}$ C. $\{1, 2\}$ D. None of these
7	Question Image	A. perpendicular vectors B. concurrent vectors C. parallel vectors D. none of these
8	Any recurring decimal represents a	A. Irrational no B. Integer C. Rational no D. None of these
9	The velocity of a particle moving along a straight line is given by $v = 3t + t^2$ . The acceleration of the particle after 4 seconds from the start is	A. 4 B. 11 C. 26 D. None
10	If $f(x) = x^3 - 2x^2 + 4x - 1$ , then $f(-2) = ?$	A. 0 B. -25 C. 5 D. 45
11	Question Image	A. 0 B. -2 C. 1 D. 4
12	$w^1 =$ _____	A. 0 B. 1 C. w D. $w^{>2}$
13	Question Image	A. $\sec 3x + c$ B. $-\operatorname{cosec} 3x + c$
14	The period of $\cos(7x-5)$ is	A. $\pi/7$ B. $7\pi/2$ C. $\pi/2$ D. $2\pi/7$
15	The point _____ is in the solution of the inequality $4x - 3y < 2$	A. (0,1) B. (2,1) C. (2,2) D. (3,3)
16	The quadratic equation $8 \sec 2\theta - 6 \sec \theta + 1 = 0$ has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
17	The transport of a rectangular matrix is a	A. Square matrix B. Rectangular matrix C. Row matrix

18	The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angles $30^\circ$ with the longer side, the length of the longer diagonal is	
19	What is the period of $\cos 6x = ?$	A. $\pi/2$ B. $\pi/3$ C. $\pi/4$ D. $\pi$
20	If the intersection of two sets is non-empty, but either is a subset of other are called	A. Disjoint sets B. Over lapping C. Equal sets D. None of these