

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	$x = r^2, y = 1$ are the parametric equation of	A. Circle B. Hyperbola C. Ellipse D. Parabola
2	$\sin(180^\circ - \theta) =$	A. $\cos\theta$ B. $-\cos\theta$ C. $\tan\theta$ D. $\sin\theta$
3	The line $y = 4x + c$ touches the hyperbola $x^2 - y^2 = 1$ if	
4	If $\sin 6\theta + \sin 4\theta + \sin 2\theta$ , then $\theta =$	
5	The middle term of $(x-y)^8$ is	A. $25x^4y^4$ B. $70x^4y^4$ C. $120x^4y^4$ D. $97x^4y^4$
6	If A and B are two disjoint events then	A. $P(A \cup B) = P(A) + P(B)$ B. $P(A \cup B) = P(A) - P(A \cap B)$ C. $P(A \cup B) = P(A) \text{ or } P(B)$ D. None
7	The vertex of the graph of the quadratic function $f(x) = x^2 - 10$ , is	A. $(0, -10)$ B. $(-10, 0)$ C. $(10, 0)$ D. $(0, 10)$
8	The conic $ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$ never represent a circle if	A. $a \neq b, h \neq 0$ B. $a = b$ C. $h \neq 0$ D. $h = 0$
9	Question Image	
10	With usual notations $b^2 = a^2 + c^2 - 2ac \cos$ is called _____;	A. None of these B. Law of sines C. Law of cosines D. Law of tangents
11	if $Z_1 = 1+i, Z_2 = 2+3i$ , then $ Z_2 - Z_1  =$	A. $\sqrt{3}i$ B. $\sqrt{7}$ C. $-2-i$ D. $\sqrt{5}$
12	Question Image	
13	Onto function is also called	A. Bijective function B. Injective function C. Surjective function D. None of these
14	If 5, 7 and 9 are A.Ms between a and b, then a and b is equal to	A. 2 and 12 B. 1 and 10 C. 3 and 11 D. -7 and 2

15	A die is rolled. What is the probability that the dots on the top are greater than 4?	A. 1/4 B. 1/2 C. 1/3 D. 1/33
16	If $x^2 + px + 1$ is a factor of $ax^3 + bx + c$ , then	A. $a^2 + c^2 = -ab$ B. $a^2 - c^2 = -ab$ C. $a^2 - c^2 = ab$ D. None of these
17	Which of the following is not a solution of system of inequalities $2x - 3y \leq 6, 2x + y \geq 2, x + 2y \leq 8, x \geq 0, y \geq 0$	A. (1,0) B. (0,4) C. (3,0) D. (8,0)
18	Question Image <input type="text"/>	
19	Question Image <input type="text"/>	D. none of these
20	Rational number is a number which can be written as a terminating decimal fraction or a	A. Non-terminating decimal fraction B. Non-recurring C. Recurring decimal fraction D. a, b and c