

## Mathematics General Science Test Hard Mode

Sr	Questions	Answers Choice
1	The magnitude of a vector can never be	A. Zero B. Negative C. Positive D. Absolute
2	In general matrices do not satisfy	A. Commutative law w.r.t multiplication B. Associative law w.r.t addition C. Distributive law w.r.t addition D. Multiplication of a scalar with the matrix
3	What is the period of Cot x?	
4	<input type="text" value="Question Image"/>	D. None of these
5	If $-1 < x < 0$ , which of the following statements must be true?	A. $x < x^2 < x^3$ B. $x < x^3 < x^2$ C. $x^2 < x^3 < x$ D. $x^2 < x < x^3$
6	The conic is a parabola if	A. $e < 1$ B. $e > 1$ C. $e = 1$ D. $e = 0$
7	The graph of a quadratic function is	A. Circle B. Ellipse C. Parabola D. Hexagon
8	A fraction in which the degree of the numerator is less than the degree of the denominator is called	A. Polynomial B. Proper fraction C. Rational fraction D. Mixed fraction
9	The circle $(x-2)^2 + (y+3)^2 = 4$ is not concentric with the circle	A. $(x-2)^2 + (y+3)^2 = 9$ B. $(x+2)^2 + (y-3)^2 = 4$ C. $(x-2)^2 + (y+3)^2 = 8$ D. $(x-2)^2 + (y+3)^2 = 5$
10	<input type="text" value="Question Image"/>	A. (0, e) B. (0, 1) D. None
11	If $K_1: K_2 = 1 : 1$ then the point P dividing the line is	A. Midpoint B. Extreme left point C. Extreme Right Point D. P lies out side $k < 1$ and $k > 2$
12	$3/2$ is	A. An irrational number B. Whole number C. A positive integer D. A rational number
13	<input type="text" value="Question Image"/>	A. 2 B. 1 C. 3 D. 4
14	<input type="text" value="Question Image"/>	
15	The equation of the line with gradient 1 passing through the point (h, k) is	A. $Y = x + k - h$ B. $Y = k/h x + 1$ C. $Y = x + h - k$

$$D. Ky = hx - 1$$

16 If A and B are two events, then  $P(A \cup B) = ?$  (when A and B are disjoint)

- A.  $P(A) - P(B)$
- B.  $P(A) \times P(B)$
- C.  $P(A) + P(B)$

17 Question Image

18 Question Image

19 Question Image

- B.  $-3/4$
- C.  $1/16$
- D.  $1/4$

20 Question Image

- A. 1
- B. 0
- C. -2
- D. 3