

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	A bag contains 5 white, 7 red and 5 black balls. If four balls are drawn one by one with replacement, the probability that none is white is	A. $(11/16)^2$ B. $(5/16)^2$ C. $(11/16)^4$ D. $(5/16)^4$
2	$(ABC)' =$	A. CBA' B. CBA C. C'B'A D. C'B'A'
3	The position vector of any point in space is	
4	Which of the following sets has closure property w.r.t. addition	A. $\{0\}$ B. $\{1\}$ C. $\{0, -1\}$ D. $\{1, -1\}$
5	Question Image	
6	Question Image	
7	$f(x) = ax + b$ will be a constant function if	A. $a = 1, b = 1$ B. $a = 1, b = 0$
8	Area of the triangle whose vertices are (2,3),(0,1),(0,0) is	A. 6 B. 2 C. 4 D. 1
9	Question Image	D. none of these
10	$\tan \theta/2$	
11	$2/9, 5/7 \in \mathbb{R}, (2 \mid 9)(5 \mid 7) = 10/63 \in \mathbb{R}$ this property is called	A. Associative property B. Identity property C. Commutative property D. Closure property w.r.t multiplication
12	The line joining the center of a circle to the midpoint of the chord is	A. Perpendicular to the tangent B. Perpendicular to the normal C. Perpendicular to the chord D. Perpendicular to the chord
13	nC_2 exists when n is _____	
14	Let a_1, a_2, a_3, a_4 and a_5 be such that a_1, a_2 and a_3 are in A.P., a_2, a_3 and a_4 are in G.P and a_3, a_4 and a_5 are in H.P. Then, a_1, a_3 and a_5 are in	A. G.P. B. A.P. C. H.P. D. None of these
15	The vertex of the parabola $(x \sin a - y \cos a)^2 = 4a(x \cos a + y \sin a)$ lies at	A. $(a \cos a, a \sin a)$ B. $(a, 0)$ C. $(\cos a, \sin a)$ D. $(0, 0)$
16	Every identity matrix is	A. Row-vector B. Scalar C. Column-vector D. All
17	$3x + 4 > 0$ is	A. equation B. identity C. inequality D. none of these
18	$i =$	A. $\sqrt{1}$ B. $\sqrt{2}$ C. $\sqrt{-2}$ D. $\sqrt{-1}$
19	Question Image	

