Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The parabola $y^2 = x$ is symmetric about	A. x-axis B. y-axis C. Both x and y-axis D. The line y = x
2	A class contains nine boys and three girls, in how many ways can the teacher choose a committee of four?	A. 60 B. 460 C. 495 D. 272
3	A monoid (G, *) is said to be group if	A. have identity element B. is commutative C. have inverse of each element D. None of these
4	Which is in the solution set of 4x - 3y < 2	A. (3, 0) B. (4, 1) C. (1, 3) D. None
5	If -1 < x < 0, which of the following statements must be true?	A. x < x²< x³ B. x < x³< x² C. x²< x³< x D. x²< x < x³
6	sin(a-90°)=_____;	A. sina B. cosa C. -sinθ D. -cosa
7	Co-ordinate of a point on the parabola $y^2 = 8x$ whose focal distance is 4 are:	A. (2 , 4) B. (-2 ,-4) C. (-2, 4) D. (2,-4)
8	120°=_____	
9	Question Image	
10	For all points (x,y) in fourth quadrant	A. x > 0 , y < 0 B. x > 0 , y > 0 C. x < 0 , y < 0 D. x < 0 , y > 0
11	The probability to get an odd number in a dice thrown once is	A. 1/2 B. 1/6 C. 1/3 D. 2
12	The latus rectum of the ellipse $5x^2 + 9y^2 = 45$ is	A. 10 / 3 B. 5 / 3 C. 3 / 5 D. 3 / 10
13	Question Image	B. tan 3x + c C. cot 3x + c D. - cot 3x + c
14	Question Image	D. none of these
15	Question Image	A. Commutative law of multiplication B. Closure law of multiplication C. Associative law of multiplication D. Multiplication identity
16	The matrix A = [aij]1xn is a	A. Vector B. Rectangular matrix C. Column vector D. Square matrix

17	The equation $x^2 + y^2 = 0$ represents	A. A circle B. A degenerate circle C. An empty set D. A st. line
18	Question Image	A. Rational B. Irrational C. Non-real D. Zero
19	The 8th term of $(1+2x)^{-1/2}$ is	A. -221/16 x⁷ B. -225/18 x⁷ C. -407/9 x³ D. -429/16 x⁷
20	If $\sin\alpha$ and $\cos\alpha$ are the roots of the equation $px^2 + qx + r = 0$, then	A. p²- q²+ 2pr = 0 B. (p + r)²= q²- r² C. p²+ q²- 2pr = 0 D. (p - r)²= q²+ r²