Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	A relation in which the equality is true only for some values of the unknown is called	A. An identity B. An equation C. A polynomial D. None
2	The eccentricity e of an ellipse is always	A. Rational B. Real C. Irrational D. Integer
3	The centroid of a triangle divides each median in the ratio	A. 2 : 1 B. 3 : 1 C. 3 : 2 D. 1 : 1
4	Question Image	A. -3 B. -7 C. 1 D. 0
5	A point of a solution regions where two of its boundary lines intersect, is called:	A. Vertex of the solution B. Feasible point C. Point of inequality D. Null point of the solution region
6	x = -1 is in the solution of the inequality	A. x + 5 < 0 B. 2x + 3 <u><</u> 0 C. x > 0 D. 2x + 3 > 0
7	Question Image	A. sec 5x + c B. - sec 5x + c
8	The period of tan x/7 is	A. 3π B. 7π C. 15π D. 5π
9	If $\sin\theta$ and $\cos\theta$ are the roots of the equation $ax^2 - bx + c = 0$, then a, b, c satisfy the relation	A. b²- a²= 2ac B. A²- b²= 2ac C. A²+ b²= c² D. B²+ a²= 2ac
10	A relation in which the equality is true for all values of the unknown is called _____	A. An identity B. An equation C. A polynomial D. None of these
11	In a school, there are 150 students. Out of these 80 students enrolled for mathematics class, 50 enrolled for English class, and 60 enrolled for Physics class. The students enrolled for English cannot any other class, but the students of mathematics and Physics can take two courses at a time. Find the number of students who have taken both physics and mathematics	A. 40 B. 30 C. 50 D. 20
12	Question Image	
13	$f(x) = 2x^2 + 3x + 5$ is a	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
14	Question Image	
15	Question Image	
16	A rectangular hyperbola whose centre is C is cut by any circle of radius r in four points P, Q, R and S. Then $CP^2 + CQ^2 + CR^2 + CS^2$=	A. r² B. 2 r² C. 3 r² D. 4 r²
		A. 15/6

17	The area between the x-axis and the curve $y = x^2 + 1$ from x = 1 to 2 is:	A. 15/6 B. 15/4 C. 10/4 D. 10/3
18	If $a (p + q)^2 + bpq + c = 0$ and $a (p + r)^2 + 2 bpr + c = 0$, then qr equals	A. p²+ c/a B. p²+ a/c C. p²+ c/a D. p²- c/a
19	Question Image	
20	If y=f(x) is a function then x is called	A. dependent variable B. independent variable C. constant D. none of these