Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	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
3	The locus of the centre of a circle which touches two given circles externally is:	A. a hyperbola B. an ellipse C. a circle D. a parabola
4	If the angle between two vectors u and v is 0 orπ, then the vectors u and v are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
5	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
6	Question Image	
7	If n is any positive integer then 4^n>3^n+ 4 is true for all	
8	4^{1+x}+ 4^{1-x}= 10 is called	A. Reciprocal equation B. Exponential equation C. Radical equation D. None of these
9	Which is an explicit function	A. y = x²+ 2x - 1 B. x²+ xy + y²= 2 C. x²+ y²= xy + 2 D. All are
10	Question Image	
11	if a_1 =3, d=7 and a_n =59 , then the number of terms in A.P is	A. 7 B. 9 C. 11 D. 13
12	The centre of the circle x2+y2 -2fx-2gy+x=0 is	A. (-g,-f) B. (g,f) C. (f,g) D. (-f,-g)
13	Question Image	A. Polynomial of degree 0 B. Polynomial of degree 1 C. Polynomial of degree 2 D. Polynomial of degree n
14	The domain of the function x/x^2 -4 is given by	A. R B. R + 2 C. [R - (<u>+</u>2) D. R-4
15	Question Image	A. 0 B. 1 C. -1 D. none of these
16	If f(x) = x + 1 then f(z^2-1) is	A. z² B. z²+ 2 C. z²- 2 D. none of these
17	Question Image	
		A. Real

18	The roots of (x - a)(x - b) = ab x2 are always	B. Depends upon a C. Depends upon b D. Depends upon a and b
19	Question Image	D. none of these
20	In R, the additive inverse of a is	A. 0 B. 1 C. -a D. 1/a