ECAT Pre General Science Mathematics Chapter 23 Conic Section Online Test

Sr	Questions	Answers Choice
1	Number of conics is	A. 1 B. 3 C. 2 D. 4
2	The vertex of the parabola (xsin a -ycos a)2 =4a(xcos a +ysin a) lies at	A. (acos a,asin a) B. (a,0) C. (cos a,sin a) D. (0,0)
3	The number of standard parabolic functions are is	A. 4 B. 2 C. 3 D. 1
4	The parabolay2=4ax open up if	A. a<0 B. a≠0 C. a>0 D. All are incorrect
5	y=-a is the equation of the directrix of	A. y2 =4ax B. x2=-4ay C. x2=4ay D. y2=-4ax
6	Equation of normal to the circle x2 + y2 =25 at (5cosθ,5sinθ)	A. xcosθ+ysinθ =5 B. xcosθ -ysinθ =0 C. xsinθ -ycosθ =0 D. None of these
7	For what value of k, 3x -2y+ k= 0 is tangent to the circle x2 +y2 +6x -4y =0	A. k=0 B. k=0 or 26 C. k = 26 D. k=-13
8	Two circles x2 +y2 +8x -9= 0 and x2+y2+6y +k =0 touchinternallyif the value of k is	A. k = 9 B. k = ±9 C. k=-9 D. k=11
9	The line joining the center of a circle to the midpoint of the chord is	A. Perpendicular to the tnagent B. Perpendicular to the normal C. Perpendicular to the chord D. Perpendicular to the chord
10	Equation of the chord of contact to the tangents drawn from (-3,4) to the circle x2 + y2 = 21	A. -3x + 4y =21 B. 4x - 3x = 0 C. -3x + 4y = 25 D. None of these
11	Area of the circle with ends of a diameter at (-3,2) and (5,-6)	A. 128π sq. units B. 64π sq. units C. 32π sq.units D. None of these
12	Two tangents drawn from (2,3) to the circle x2+y2 =9 are	A. Real and distinct B. Imaginary C. Real and coincident D. None of these
13	The centre of the circle x2+y2 -2fx-2gy+x=0 is	A. (-g,-f) B. (g,f) C. (f,g) D. (-f,-g)
14	x =r cosθ,y= sinθ are the parametric equations of	A. Circle B. Ellipse C. Parabola D. Hyoerbola
15	The common point to four standard parabolas	A. Focus B. Centre C. Vertex D. P(x,y)

16	Equation of parabola with focus F(-3,1) directrix x=3 is	A. (y -1)2 =-12x B. (y-1)2 =4x C. (x+3)2 =4a(y-1) D. y2 =-12(x-1)
17	The span of a standard parabola depends upon	A. x B. a C. y D. y2
18	If a > 0 they parabola y2 =-4ax lies in	A. I and iv quadrant B. I quadrant C. II and III quadrant D. All are incorrect
19	The conic ax2+2hxy+by2+2gx+2fy+c= 0 never represent a circle if	A. a≠ b,h≠0 B. a=b C. h≠0 D. h=0
20	The equation of the tangent at vertex to the parabola is y2 = -8(x -3)	A. y=0 B. x=3 C. x=1 D. x=5
21	The straight line passing through the focus and perpendicular to the directrix of the conic is known as its	A. Tangent B. axis C. Focal chord D. major or manor axis
22	The equation of vertical asymptotes of y = cos ecx is	A. x = 0 B. y = 0 C. x =∞ D. y =∞