

ECAT Pre General Science Mathematics Chapter 23 Conic Section Online Test

Sr	Questions	Answers Choice
1	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
2	An ellipse slides between two lines at right angles to one another. The locus of its centre is :	A. a parabola B. an ellipse C. a circle D. a hyperbola
3	The eccentricity of ellipse becomes zero, then it takes the form of:	A. a parabola B. a straight line C. a circle D. None of these
4	The locus of intersection of perpendicular tangents to the parabola $y^2 = 4ax$ is:	A. Axis of the parabola B. Focal chord of the parabola C. The tangent at vertex of the parabola D. a directrix of the parabola
5	The eccentricity of parabola is:	A. 1 B. 0 C. Greater than 1 D. Less than 1
6	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)
7	Coordinates of the focus of the parabola $x^2 - 4x - 8y - 4 = 0$ are:	A. (0, 2) B. (0, 1) C. (2, 0) D. (1, 2)
8	Which shape of the following objects are approximately parabolic arcs?	A. Light reflectors B. Force C. Weight of the pendulum D. None of these
9	Latus rectum = 4 x _____	A. focal distance of the vertex B. Chord C. Focus D. 1/2
10	If $e > 1$, then the conic, is:	A. Ellipse B. Parabola C. Hyperbola D. None of these
11	the latus rectum of the parabola $x^2 = -4ay$ is:	A. $x = a$ B. $y = -a$ C. $x = -a$ D. $y = 0$
12	the curve of the parabola $y^2 = -4ax$ is symmetric with respect to	A. x-axis B. y-axis C. Both x and y-axis D. None of these
13	The point which is closest to the focus of a parabola is:	A. vertex B. Chord C. Focus D. Directrix
14	The parabola $y^2 + 2y + x = 0$ lies in _____ quadrant.	A. First B. Second C. Third D. Fourth
15	The axis of the parabola $x^2 = 4ay$ is:	A. $y = 0$ B. $x = 0$ C. $x = -a$ D. $y = a$

		D. $y = a$
16	What is the axis of the parabola $y^2 = 4ax$?	A. $x = 0$ B. $y = 0$ C. $x = a$ D. $y = 0$
17	The conic is a parabola, when:	A. $e > 1$ B. $e < 1$ C. $e = 1$ D. $e = 0$
18	If the vertex of the parabola is the origin and directrix is $x+5 = 0$. then its latus rectum is:	A. 10 B. 5 C. 0 D. 20
19	The distance of point P(x,y) from focus in a parabola $y^2 = 4ax$, is:	A. 2a B. a C. $x + a$ D. $x - a$
20	a chord passing through the focus of a parabola is called a:	A. Focal chord B. Latus rectum C. Tangent D. Directrix
21	$y=0$ of the parabola $y^2 = 4ax$ is the	A. equation of directrix B. Equation of the tangent C. Equation of axis D. equation of latus rectum
22	If the focus is F (0,-a) and directrix is the line $v=a$, then equation of the parabola is:	A. $x^{>2</sup> = 4ay$ B. $y^{>2</sup> = 4ax$ C. $y^{>2</sup> = -4ax$ D. $x^{>2</sup> = 4ax$
23	A line joining two distinct points on a parabola is called a _____ of the parabola.	A. Chord B. Tangent C. Latus rectum D. directrix
24	If the focus lies on the y-axis with coordinates f(0,a) and directrix of the parabola is $y = -a$, the equation of parabola is:	A. $y^{>2</sup> = -4 ax$ B. $x^{>2</sup> = 4ay$ C. $x^{>2</sup> = -4ay$ D. $y^{>2</sup> = 4ax$
25	e is a	A. variable B. Positive constant C. Positive variable D. Directrix
26	The line through the focus and perpendicular to the directrix is called _____ of the parabola	A. axis B. focal chord C. tangent D. latus rectum
27	The vertex of the equation $y^2 = 4ax$ is:	A. (2, -2) B. (1,1) C. (0 , 0) D. (2 , 2)
28	If (0,4) and (0,2) are vertex and focus of the parabola respectively, the the equation of the parabola is:	A. $x^{>2</sup> = 4y - 32$ B. $x^{>2</sup> = 8y - 32$ C. $y^{>3</sup> = 16 x$ D. $x^2 + 8y = 32$
29	The point where the axis meets the parabola is called	A. Directrix B. Foucu C. Chord D. Vertex
30	The locus of the point of intersection of tangents to an ellipse at two points, sum of whose eccentric angles is constant is	A. A parabola B. A circle C. An ellipse D. A st. line