

Choose the correct answer.

- The curve obtain by cutting a (double) right circular cone by a plane are called
(a) Conics (b) Conic section (c) Both a & b (d) None of these
- A line through the centre of the given circle and perpendicular to its plane is
(a) Vertex of cone (b) Apex of cone (c) Axis of cone (d) None of these
- All lines through vertex and points on circle generate a
(a) Circle (b) Ellipse (c) Circular cone (d) None of these
- The lines which generate the cone are known as
(a) Rulings (b) Vertices (c) Axis of the cone (d) None of these
- If a cone is cut by a plane perpendicular to its axis, then section is
(a) An ellipse (b) A parabola (c) A hyperbola (d) None of these
- If cutting plane is slightly tilted and cuts only one nape of the cone, resulting section is
(a) An ellipse (b) A circle (c) A parabola (d) None of these
- The distance from the centre of a circle to any point on the circle is its
(a) Centre (b) Radius (c) diameter (d) None of these
- If r is radius of the circle, and $r > 0$ then circle is a
(a) Point circle (b) Real circle (c) Imaginary (d) None of these
- If the radius of a circle is zero then circle is
(a) Point circle (b) Real circle (c) Imaginary (d) None of these
- If $x^2 + y^2 + 2gx + 2fy + c = 0$ is an equation of the circle then its radius is
(a) $\sqrt{g^2 + f^2 + c}$ (b) $\sqrt{g^2 + f^2 - c}$ (c) $\sqrt{g + f + c}$ (d) $\sqrt{g + f - c}$
- The equation $x^2 + y^2 = 0$ represents the
(a) Point circle (b) Real circle (c) Imaginary (d) None of these
- A line that touches the curve without cutting through it is called
(a) Tangent (b) Normal (c) Slope (d) None of these
- The line perpendicular to the tangent at any point $P(x,y)$ is known as
(a) Tangent at P (b) Normal at P (c) Slope of the tangent (d) None of these
- $xx_1 + yy_1 + g(x + x_1) + f(y + y_1) + c = 0$ represents an equation of
(a) Tangent (b) normal (c) Slope of tangent (d) None of these
- The point $P(x_1, y_1)$ lies outside the circle if
(a) $x_1^2 + y_1^2 + 2gx_1 + 2fy_1 + c < 0$ (b) $x_1^2 + y_1^2 + 2gx_1 + 2fy_1 + c = 0$
(c) $x_1^2 + y_1^2 + 2gx_1 + 2fy_1 + c > 0$ (d) None of these
- The point $P(-5,6)$ lies _____ the circle $x^2 + y^2 + 4x - 6y = 12$
(a) Inside (b) Out side (c) On (d) None of these
- A straight line segment joining any two points on a circle is known as
(a) Tangent (b) Chord (c) Normal (d) None of these
- A chord containing the centre of the circle is
(a) Radius of circle (b) Diameter of circle (c) Area of circle (d) None of these
- The line joining the centre of the circle to the mid point of the chord is _____ to the chord
(a) Parallel (b) Perpendicular (c) Congruent (d) None of these
- An angle in a semi-circle is always
(a) Acute angle (b) Obtuse angle (c) Right angle (d) None of these
- The ratio of the distance of a point from the focus to distance from the directrix is denoted by
(a) r (b) R (c) E (d) e
- Standard equation of parabola is

- (a) $y = 4ax$ (b) $x = 4ay$ (c) $x^2 + y^2 = a^2$ (d) $y^2 = 4ax$
23. The line through the focus and perpendicular to directrix is called
 (a) Directrix (b) focus (c) Axis of parabola (d) None of these
24. The focal chord is a chord which is passing through
 (a) Vertex (b) Focus (c) Origin (d) None of these
25. Parametric equation of $y^2 = 4ax$ is
 (a) $x = at, y = 2at$ (b) $x = at, y = 2at^2$ (c) $x = at^2, y = 2at$ (d) None of these
26. The curve $y^2 = 4ax$ is symmetric about
 (a) y-axis (b) x-axis (c) Both a & b (d) None of these
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27. Latusrectum of $x^2 = -4ay$ is
 (a) $x = a$ (b) $x = -a$ (c) $y = a$ (d) $y = -a$
28. Eccentricity of the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ is
 (a) $\frac{a}{c}$ (b) ac (c) $\frac{c}{a}$ (d) None of these
29. Parametric equation of the ellipse is
 (a) $x = a \cos \theta, y = b \sin \theta$ (b) $x = r \cos \theta, y = r \sin \theta$
 (c) $x = at^2, y = 2at$ (d) None of these
30. Focus of $y^2 = -4ax$ is
 (a) (0,a) (b) (-a,0) (c) (a,0) (d) (0,-a)
31. The mid point of the foci of the ellipse is its
 (a) Vertex (b) Centre (c) Directrix (d) None of these
32. Focus of the ellipse always lies on the
 (a) Minor axis (b) Major axis (c) Directrix (d) None of these
33. Length of the major axis of $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1, a > b$ is
 (a) $2b$ (b) $2a$ (c) $\frac{2b^2}{a}$ (d) None of these
34. A type of the conic that has eccentricity greater than 1 is
 (a) An ellipse (b) A parabola (c) A hyperbola (d) None of these
35. Standard equation of the hyperbola is
 (a) $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ (b) $y^2 = 4ax$ (c) $x^2 + y^2 = a^2$ (d) $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$
36. An equation of the form $Ax^2 + By^2 + Gx + Fy + C = 0$ represents a circle if
 (a) $A=0$ or $B=0$ (b) $A = B \neq 0$ (c) $A \neq B$ (d) None of these
37. $x^2 + y^2 = -5$ represents the

38. (a) Point circle (b) Real circle (c) Imaginary circle (d) None of these
Which one is related to the circle
39. (a) $e=1$ (b) $e<1$ (c) $e>1$ (d) $e=0$
Equation of the directrix of $x^2 = -4ay$ is
40. (a) $x + a = 0$ (b) $x - a = 0$ (c) $y + a = 0$ (d) $y - a = 0$
Circle is the special case of
- (a) Parabola (b) Hyperbola (c) Ellipse (d) None of these

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