

Agnihotri Engineering & GATE Classes

Scripting success stories

CONIC SECTION

Ellipse

- Q.1) Construct an ellipse by oblong method when major axis is 150 mm & minor axis is 100 mm long ?
- Q.2) Inscribe an ellipse in a parallelogram having sides 150 mm & 100 mm long & included an angle of 120° ?
- Q.3) Construct an ellipse by concentric circle method when major axis is 120 mm & minor axis is 80 mm .
- Q.4) Construct an ellipse by arc of circle method when major axis is 150 mm & minor axis is 100 mm long. Also draw normal & tangent to ellipse at 30 mm from major axis ?
- Q.5) Two fixed points F_1 & F_2 are 100 mm apart. Trace the complete path of point 'p' moving in a plane in such a way that the sum its distances from two fixed point is always the same & is equal to 130 mm . Name the curve?
- Q.6) In a triangle ABC, $AB = 100$ mm , $BC = 55$ mm & $AC = 75$ MM. Draw an ellipse such that A & B act as focus & C is a point on the curve?
- Q.7) The foci of an ellipse are 90 mm apart & minor axis is 65 mm long .Draw the upper half of the ellipse by concentric circle method & lower half by oblong method & also determine the length of major axis?

Parabola

- Q.8) Construct a parabola by general method when distance of focus from directrix is 60mm & $e = 1$?
- Q.9) A fixed point is 75 mm from fixed straight line. Draw the locus of point P moving in such a way that its distance from the fixed straight line is equal to its distance from the fixed point. Name the curve?
- Q.10) Construct a parabola by rectangle method when base $AB = 80$ mm & axis $CD = 100$ mm ?
- Q.11) A ball is thrown up in the air & reaches the maximum height of 160 mm & travels a horizontal distance of 120 meters . Trace the path of the ball assume it to be parabolic & use proper scale?
- Q.12) A ball is thrown up in the air & reaches the maximum height of 45 meter & travel a horizontal distance of 75 meters. Trace the path of the ball , assume it to be parabolic by using the proper scale ?
- Q.13)A stone is thrown upwards from a building of 6m height & its highest point of flight just crosses a palm tree of 12 m height . Trace the path of the projectile if the distance between the building & the palm tree is 3m?
- Q.14)Construct a parabola by tangent method when base $AB = 60$ mm & axis $CD = 30$ mm?
- Q.15)A fountain jet discharges water from ground level at an angle of 60° to the horizontal. The jet travels a horizontal distance of 8 m from the point of discharge & falls on the ground Trace the path of the jet & name the curve ?
- Q.16)A fountain jet discharge water from ground level at an inclination of 50° to the ground. The jet travels a horizontal distance of 9 m from the point of discharge & falls on the ground . Trace the path of the jet ?

Hyperbola

Q.17) Construct a hyperbola by general method when distance of focus from directrix is 50mm & $e = 3/2$?

Q.18) A point 'p' 30 mm & 50 mm respectively from two straight lines which are at right angle to each other. Draw a rectangular hyperbola through point p within 10 mm distance from each line?

Q.19) Construct a rectangular hyperbola when a point p on it is at a distance of 15mm & 20 mm respectively from two asymptotes ?

Q.20) Two straight lines OA & OB makes an angle of 75° between them . P is a point 40 mm from OA & 50 mm from OB. Draw a hyperbola through P with OA & OB as asymptotes , making atleast 10 points?



Classes on (ED,BEEE,M1,M2,M3,NA,CONTROL,DSP & other GATE oriented Engineering Subjects)

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