

ENGINEERING GRAPHICS

Q1. Construct a plain scale of 1 cm=0.5 km, to read km and hm and long enough to measure upto 9 km. Find its R.F. and measure a distance of 6 Km and 4 Hm.

Q2. Distance between two railway stations is 600 km. it is represented on a railway map by a line 15 cm long. Construct a diagonal scale to measure upto a km. Find its R.F. and indicate a distance of 346 km on this scale.

Q3. A point P moves in a plane such that its distance from a fixed straight line AB and fixed point O is always equal. The shortest distance of the point O from the line AB is 60 mm.

Q4. A circular disc of diameter AB=80 mm rotates about its centre O. A point P moves along the diameter from A to B in one revolution of the disc. Draw the locus of point P.

Q5. Draw an ellipse, by concentric circle method given its major and minor axes as 100 mm and 70mm respectively.

Q6. Construct a plain scale of 1 cm=0.5 km, to read km and hm and long enough to measure upto 9 km. Find its R.F. and measure a distance of 6 Km and 4 Hm.

Q7. Distance between two railway stations is 600 km. it is represented on a railway map by a line 15 cm long. Construct a diagonal scale to measure upto a km. Find its R.F. and indicate a distance of 346 km on this scale.

Q8. A point P moves in a plane such that its distance from a fixed straight line AB and fixed point O is always equal. The shortest distance of the point O from the line AB is 60 mm.

Q9. A circular disc of diameter AB=80 mm rotates about its centre O. A point P moves along the diameter from A to B in one revolution of the disc. Draw the locus of point P.

Q10. Draw an ellipse, by concentric circle method given its major and minor axes as 100 mm and 70mm respectively

Q11. Draw a parabola given its base and axis as 100 mm each.

Q12. Draw an epicycloids, given the radii of rolling and directing circles as  $r = 30\text{mm}$  and  $R = 120\text{ mm}$  resp. Also draw a normal and tangent at any point Q on the curve.

Q13. construct an Archimedean spiral of two convolutions, greatest and the shortest radii as 84 mm and 12 mm, respectively.

Q14. A line PQ 80mm long has its end P 15mm from both H.P. & V.P. The other end is 40 mm above H.P. & 50 mm in front of V.P. Draw the projections of the line & determine the inclination of line with H.P. & V.P.

Q15. The T.V. of a 75 mm long line measures 65 mm ,while the length of its front view is 50 mm .Its end A is in the H.P. & 12 mm in front of V.P. Draw its projection of line AB & determine its inclination with H.P. & V.P.

Q16. Draw a parabola given its base and axis as 100 mm each.

Q17. Draw an epicycloids, given the radii of rolling and directing circles as  $r = 30\text{mm}$  and  $R = 120\text{ mm}$  resp. Also draw a normal and tangent at any point Q on the curve.

Q18. construct an Archimedean spiral of two convolutions, greatest and the shortest radii as 84 mm and 12 mm, respectively.

Q19. A line PQ 80mm long has its end P 15mm from both H.P. & V.P. The other end is 40 mm above H.P. & 50 mm in front of V.P. Draw the projections of the line & determine the inclination of line with H.P. & V.P.

Q20. The T.V. of a 75 mm long line measures 65 mm, while the length of its front view is 50 mm .Its end A is in the H.P. & 12 mm in front of V.P. Draw its projection of line AB & determine its inclination with H.P. & V.P.