Q.1) A point 'P' is moving around the surface of a cone of base 70mm & height 100mm. If the point 'P' starting from apex, reaches the periphery of cone base in one & half turns, draw the projections of the path of point 'P'. Assume axial descent of the point is uniform with its rotation.

Q2) Rod OC, 70mm long is rotating uniformly about O. During the time rod completes one & half revolution, point P starts from C moves along the rod uniformly upto O. Give the name of the curve.

circle 12
Rod 18

Q3) Rod AB, 70mm long is rotating uniformly about B. During the time rod completes one revolution, point P starts from A & moves along rod uniformly to B & reaches back to point A. Draw the paths traced out by point P. Give the name of the curve.

circle 12
Rod 6

Q4) A motor car head lamp is having an aperture (opening) of 0.16 m & depth of 0.115 m. If the shape of the reflector is parabolic, draw the shape of the parabola