

ASSIGNMENT NO: 22

1. A 3 hinged arch of span 40m and rise 8m carries concentrated loads of 200 kN and 150 kN at a distance of 8m and 16m from the left end and an UDL of 50 kN/m on the right half of the span. Find the horizontal thrust.
2. A parabolic 3-hinged arch carries a udl of 30kN/m on the left half of the span. It has a span of 16m and central rise of 3m. Determine the resultant reaction at supports. Find the bending moment, normal thrust and radial shear at xx, and 2m from left support.
3. A parabolic 3-hinged arch carries load as shown in fig. Determine the resultant reactions at supports. Find the bending moment, normal thrust and radial shear at D, 5m from A. What is the maximum bending moment?