

ASSIGNMENT NO: 18

1. A chain weighing 7 N per m is suspended between two poles with the same elevation, spaced 6 m apart. The pull of the chain on the poles is 36N. Determine sag and length of the chain, assuming the weight to be uniformly distributed along cable
2. A suspension bridge of 200M span has two three-hinged stiffening girders supported by two cables having a central dip of 25m. The width of road way is 8m. The roadway carries a dead load of $1/2\text{kN}$ per sq. meter extending over the whole span and a live load 40kN per sq. meter extending over the left half of the bridge. Find the B.M. and S.F. at point 60m and 150m from left hinge. Also calculate maximum tension in the cable.