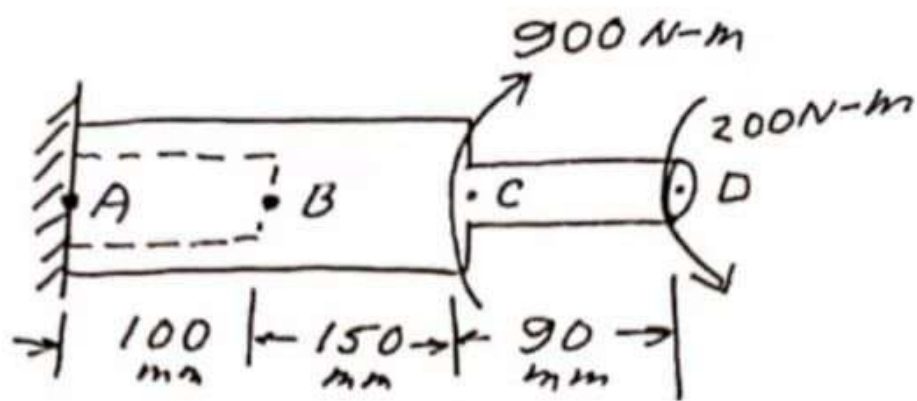


CT-3 :



Given: shaft AB is hollow,
with $ID = 20\text{mm}$, $OD = 30\text{mm}$,
shafts BC and CD are solid,
with $OD_{BC} = 30\text{mm}$ & $OD_{CD} = 15\text{mm}$,
Consider $G = 83\text{GPa}$.

Calculate:

- (i) Maximum and minimum stresses developed in the shaft ABCD.
- (ii) Angle of twist of point D w.r.t. point A.