ME-352 A
Lab 4: Cams

Aim:

Come up with the cam profile from the observed displacement diagram.

Procedure:

- Measure the base-radius "R_b" of the cam (i.e. minimum distance between axis of rotation of the cam and the outer surface of the cam)
- Rotating the cam manually, come to the position where the "knife-edge" of the follower touches the point on cam which is at "R_b" distance from the axis (this position is now your datum)
- Set the dial gauge to zero, and the pointer of the protractor to "0 degrees"
- By manually rotating the cam in intervals of 10^o, note down the corresponding displacement of follower and tabulate the data.
- From the obtained observation , sketch the cam profile
- Match it with the profile of the cam provided.

Report:

- Tabulated data with following fields: $\theta_{deg} \mid displacement \mid R_b + disp.$
- Plot: $\theta_{deg}\ Vs\ displacement$
- $\Delta_{disp(\max)}$
- Cam profile – Sketch using observation and comparison with the actual Profile
- Sources of error