

## ASSIGNMENT 4

1. What is cam and follower? give the classification of cam and follower with neat sketch.
2. Explain the terminology of cam and follower.
3. State the relation for Displacement, Velocity and Acceleration for following motion of follower 1. Uniform velocity, 2. Simple harmonic motion
4. A cam rotating clockwise at a uniform speed of 1000 r.p.m. is required to give a roller follower the motion defined below. 1. Follower to move outwards through 50 mm during  $120^\circ$  of cam rotation, 2. Follower to dwell for next  $60^\circ$  of cam rotation 3. Follower to return to its starting position during next  $90^\circ$  of cam rotation 4. Follower to dwell for the rest of the cam rotation. The minimum radius of the cam is 50 mm and the diameter of roller is 10 mm. the line of stroke of the follower is off-set by 20 mm from the axis of the cam shaft. If the displacement of the follower takes place with uniform and equal accelerations and retardation on both the outward and return strokes, draw profile of the cam.

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