

**SCHOOL OF DIPLOMA ENGINEERING, SOLDHA**  
**QUESTIONS FOR REVISION**  
**DIPLOMA AUTOMOBILE ENGG. 3<sup>RD</sup> SEM**  
**SUBJECT-AED**

1. Draw proportion neat sketches of any two of the following.
  - a. Universal joint
  - b. Roller bearing
  - c. Crankshaft
2. Draw the profile of involutes teeth for a gear having 25 teeth and a module pitch equal to 10mm assuming a pressure angle of  $20^{\circ}$
3. Gear has 24 teeth of 33mm circular pitch and pressure angle  $20^{\circ}$ . Draw a few teeth
4. Draw profile of cam with knife edge follower having uniform acceleration and retardation through the motion.
  - a. Lift of follower 40mm during  $60^{\circ}$  rotation
  - b. Dwell for next  $45^{\circ}$  rotations
  - c. The remaining revolution is at minimum radius which is 60mm
5. Detail drawing of a spark plug of engine is shown. Draw the following views of assembly. All dimensions are in mm. Observe 1<sup>st</sup> angle projection method.
  - a. Sectional front elevation
  - b. Side view
6. Draw a neat sketch of Ball bearing.
7. Draw a neat sketch of four stroke petrol engine piston.
8. Draw proportion neat sketch of connecting rod.