

S.B.Roll No.....

**MECHANICAL ENGINEERING DRAWING-II**

**4<sup>TH</sup> Exam/Mech/5303/2453/May'15**

**Duration: 03 Hrs**

**Maximum Marks: 75**

**Attempt any Three Questions**

**03 x 25 =75**

1. Figure – 1 shows the details of a Drilling Jig. Assemble all the parts and draw the Sectional Elevation. Make the List of Materials also.
2. Figure – 2 shows the “Crankshaft and Flywheel” of an I C Engine. Assemble the parts and draw the following orthographic views.
  - a) Front View – Full in Section (the Crank Shaft is not to be in Section)
  - b) Side View – Outside (looking from the right side)
3. Figure – 3 shows the detailed parts of a Mechanical Screw Jack. Assemble them and draw Elevation Right-Half in Section. Also make the Bill of Materials.
4. A wheel has 24 teeth of 33 mm circular pitch and pressure angle  $20^{\circ}$ . Set out the various circles and a few teeth.
5. Draw the profile of a cam to fulfill the following requirements:  
Minimum distance of cam centre to edge = 35 mm  
Lift of the follower = 30 mm  
The cam lifts the Knife Edge Follower with Simple Harmonic Motion during  $120^{\circ}$  of revolution, then remains at rest for next  $60^{\circ}$ , then falls with Uniform Velocity Motion during rest of the motion.  
The diameter of the shaft is 30 mm and the cam rotates in anticlockwise direction.

**Figures attached**

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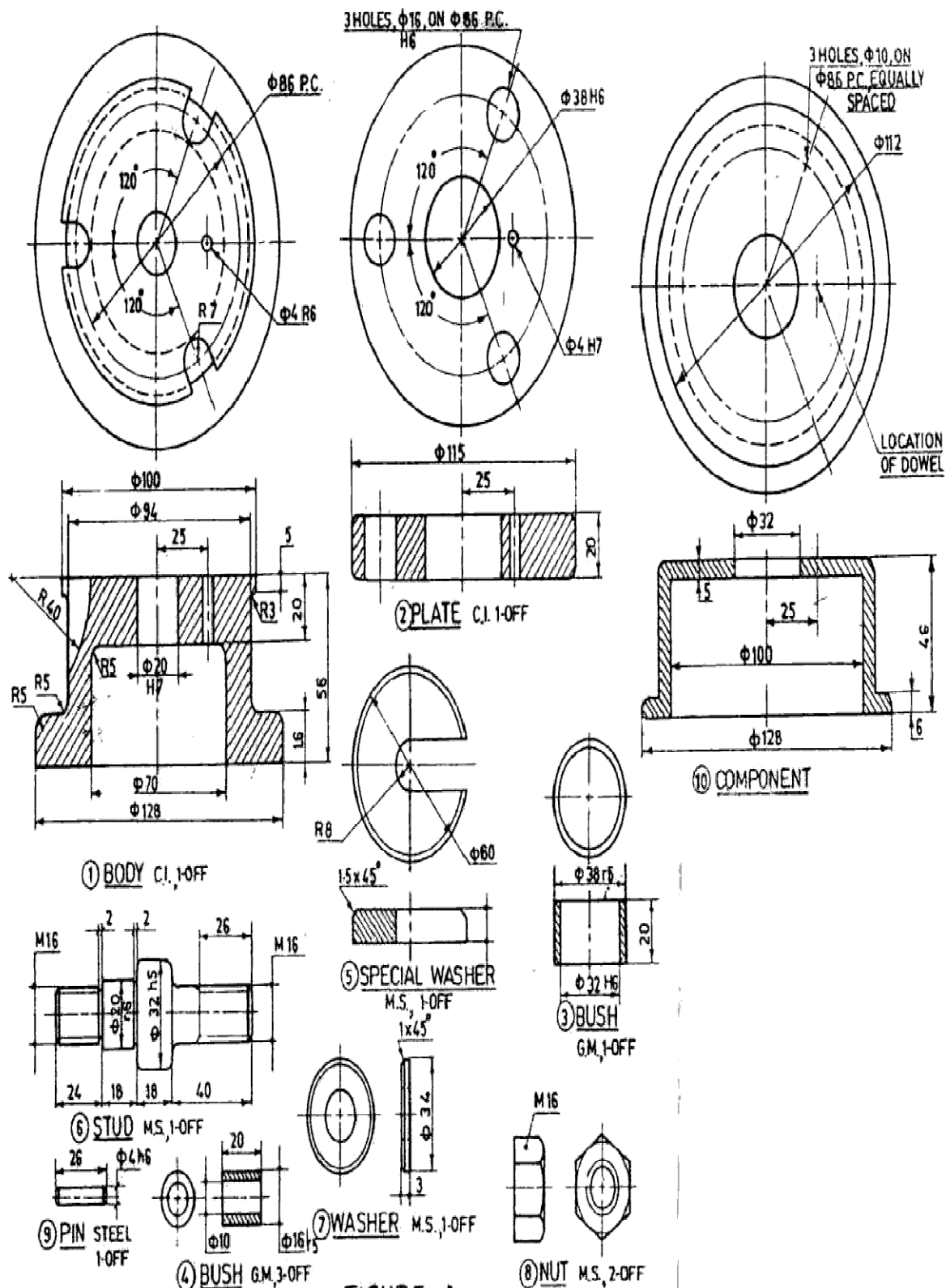
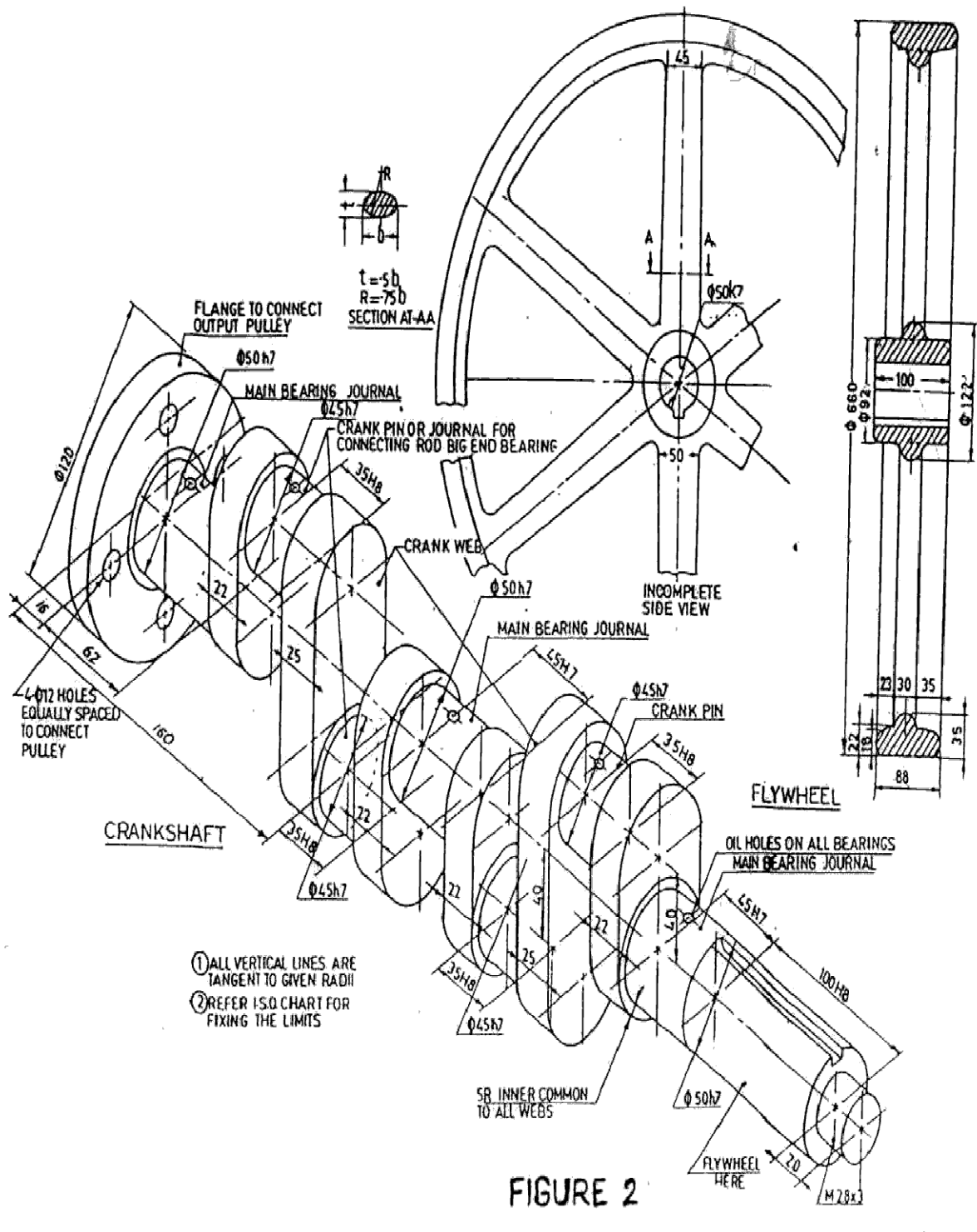


FIGURE I



S.B.Roll No.....

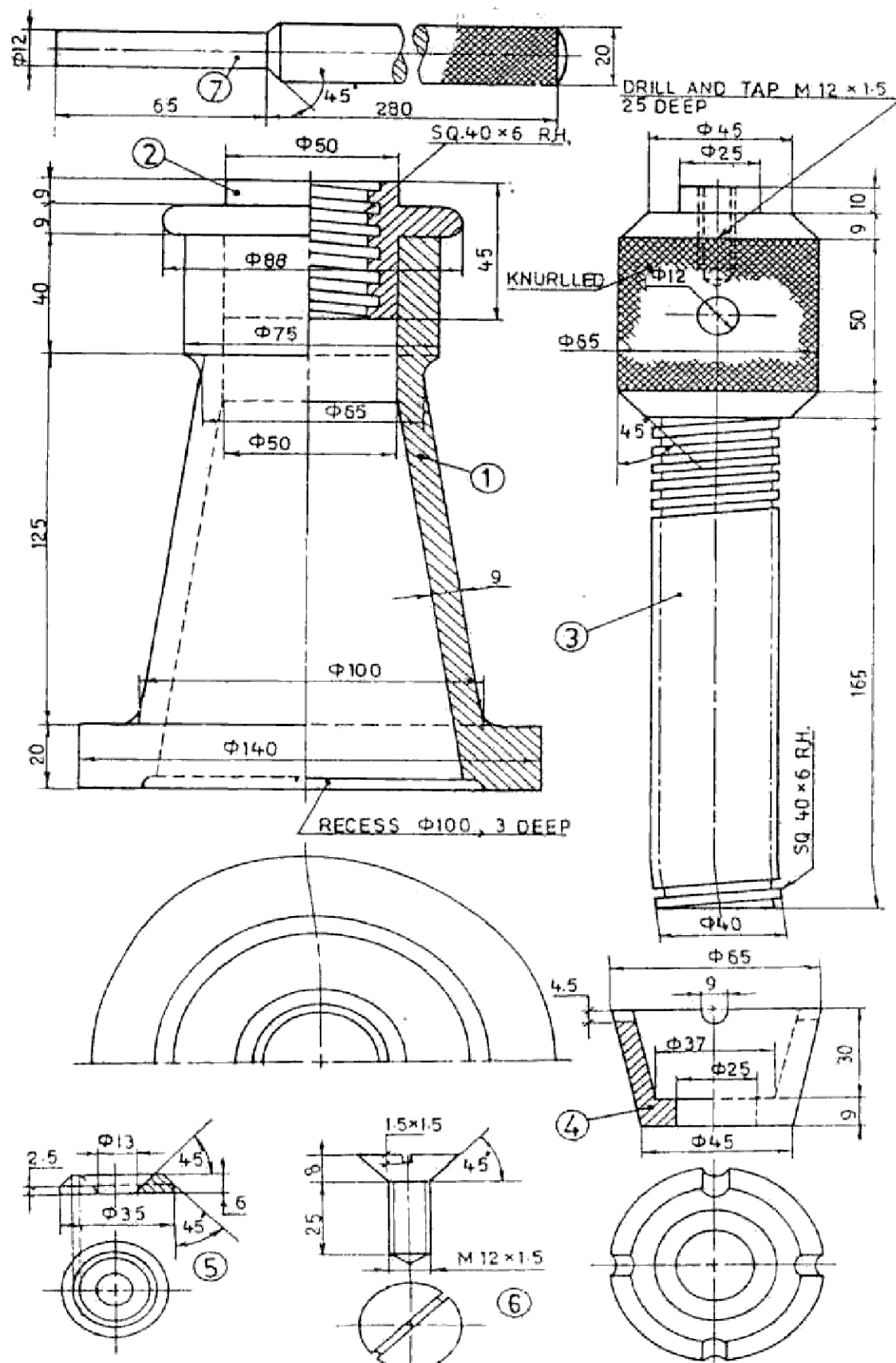


FIGURE 3

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