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Sixth Semester B.E. Degree Examination, June/July 2019  
(Mechatronics Engineering)

**COMPUTER AIDED MACHINE DRAWING**

Time: 3 Hours

Max. Marks: 80

- Note:
1. Answer any ONE question from each of the parts A, B and C.
  2. Use **First angle** projections only.
  3. If any data is missing it may be suitably assumed and mentioned.
  4. All the calculations should be on the answer sheet supplied.
  5. All the dimensions are in mm.
  6. Drawing instruments may or may not be used for sketching.
  7. Part C assembly view should be in 3-D and other views in 2-D.

**Part - A**

1. A triangular pyramid, base 40mm sides and axis 60mm long, resting on its base on the HP with one of its base edges parallel to the VP. A Section plane passing through one of its base corners of the pyramid and the two slant edges at 20mm and 30mm above the HP cuts the pyramid. Draw the front view, sectional top view and true shape of section. Determine the inclination of the section plane with the reference plane. **(20 Marks)**
2. Draw (i) the sectional view from the front, (ii) the view from above and (iii) the view from the left of a fork shown in Fig. 1. **(20 Marks)**

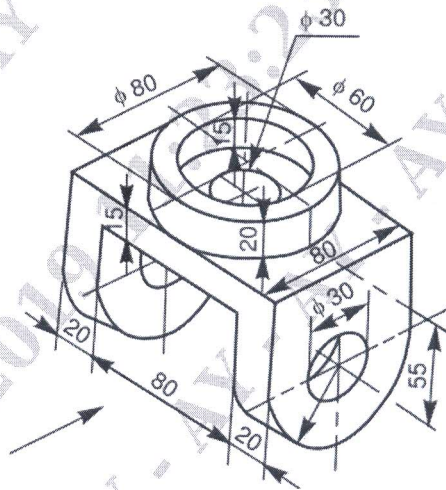


Fig. 1: Fork

**Part - B**

3. Draw the following view of a KNUCKLE JOINT used to joining two rods of diameter 25mm  
(a) Sectional front view (b) Top view. **(20 Marks)**
4. Draw sectional front view and side view of a Pin type flexible Coupling to connect two rods of diameter 20mm, indicate all dimensions. **(20 Marks)**

Part - C

5. Figure 2 shows the details of a Plummer block. Assemble the parts of the Plummer block and show the following views.
  - a. Half sectional front view showing the right half in section
  - b. Top view

(40 Marks)
6. Figure 3 shows the details of a screw jack. Assemble the parts of the screw jack and show the following views.
  - a. Half sectional front view showing the right half in section
  - b. Top view

(40 Marks)

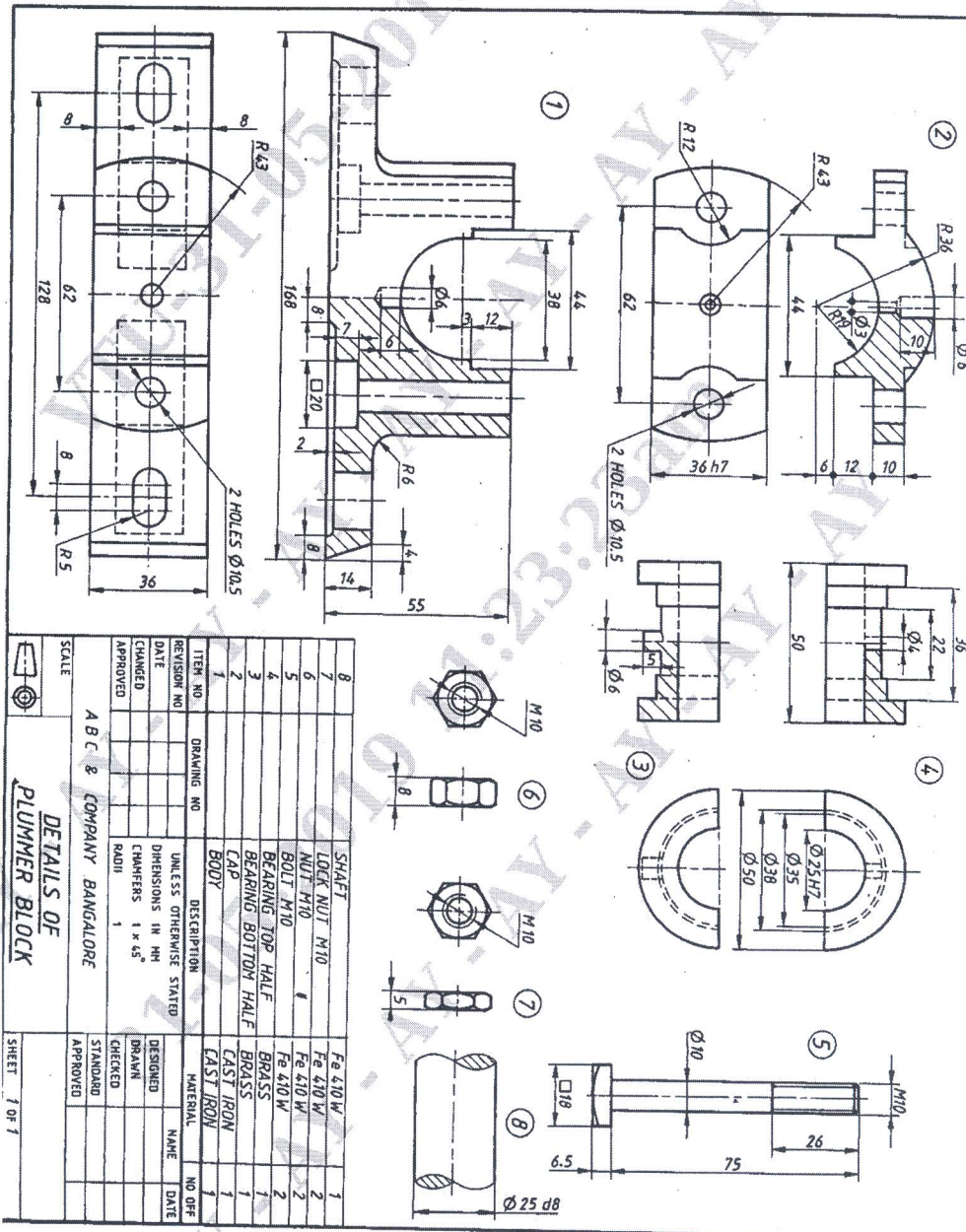


Figure 2:- Plummer Block

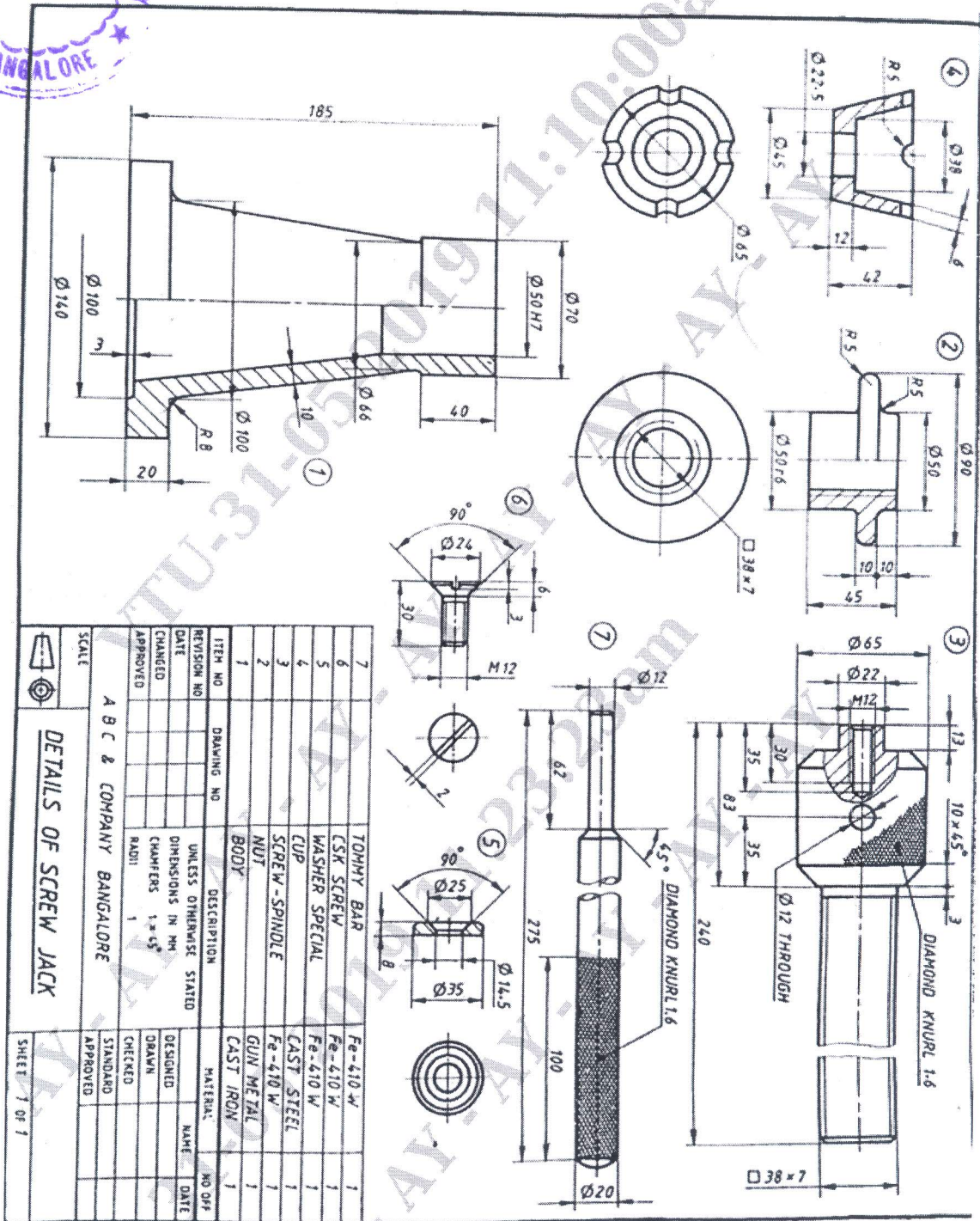
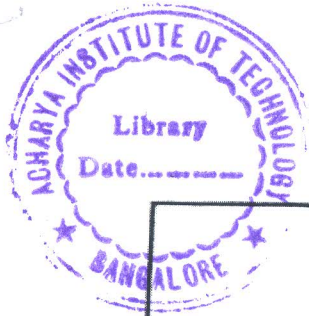


Figure 3:- Screw Jack