

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. Draw the (i) the sectional view from the front and (ii) the view from the left of a shaft support shown in the figure 1. **(20 Marks)**

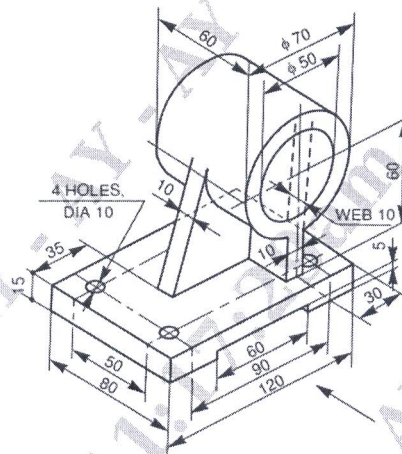


Figure 1

2. An equilateral triangular pyramid of 30mm side of base and axis 60mm long rests with its base on HP such that one of its base edges is inclined at  $45^\circ$  to the VP and nearer to it. It is cut by a section plane inclined at  $60^\circ$  to the Hp and perpendicular to the VP, intersecting the axis at 40mm from the vertex. Draw the front view, sectional views looking from the top and right side along with the cut solid. Also project the true shape of section. **(20 Marks)**

**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)

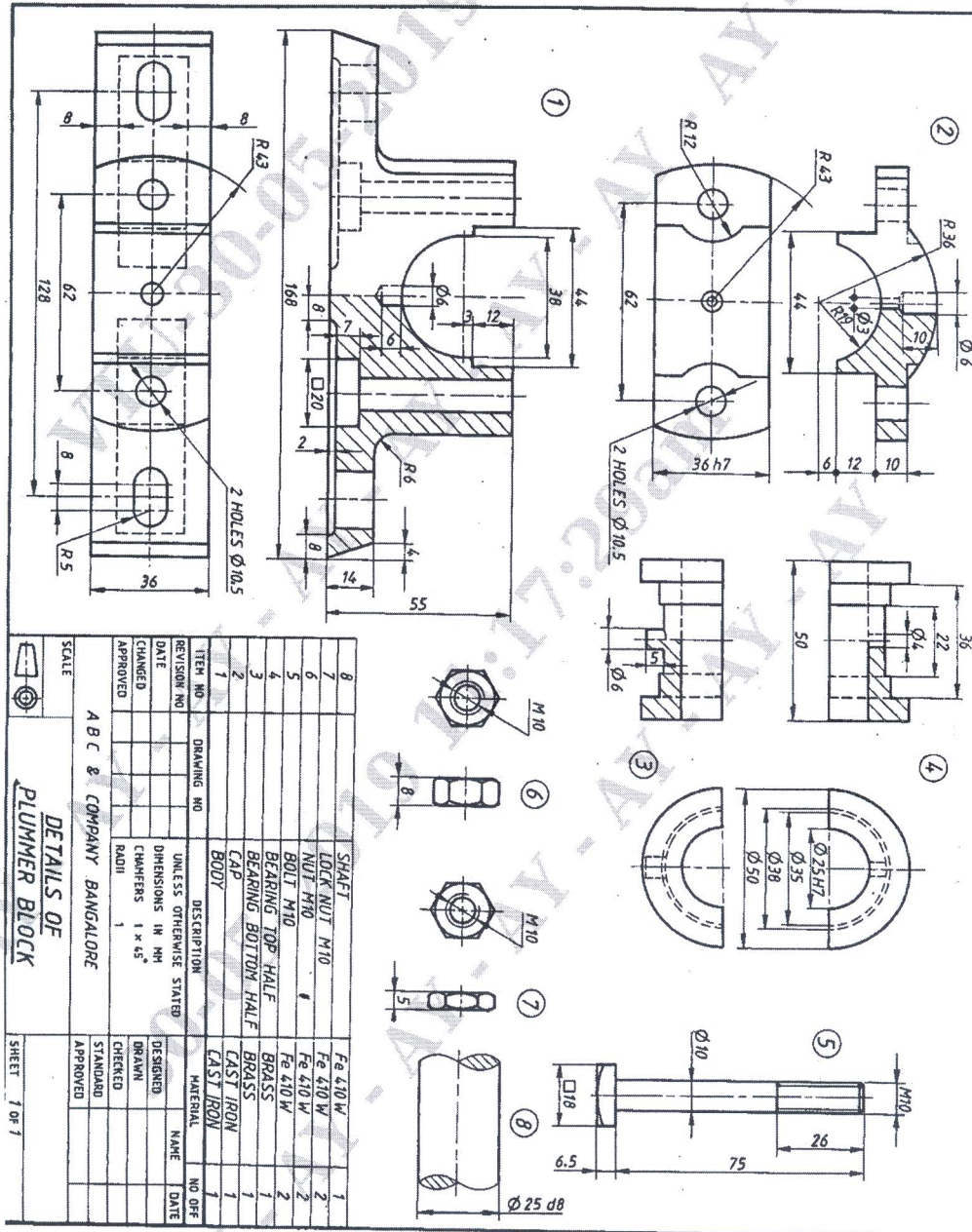
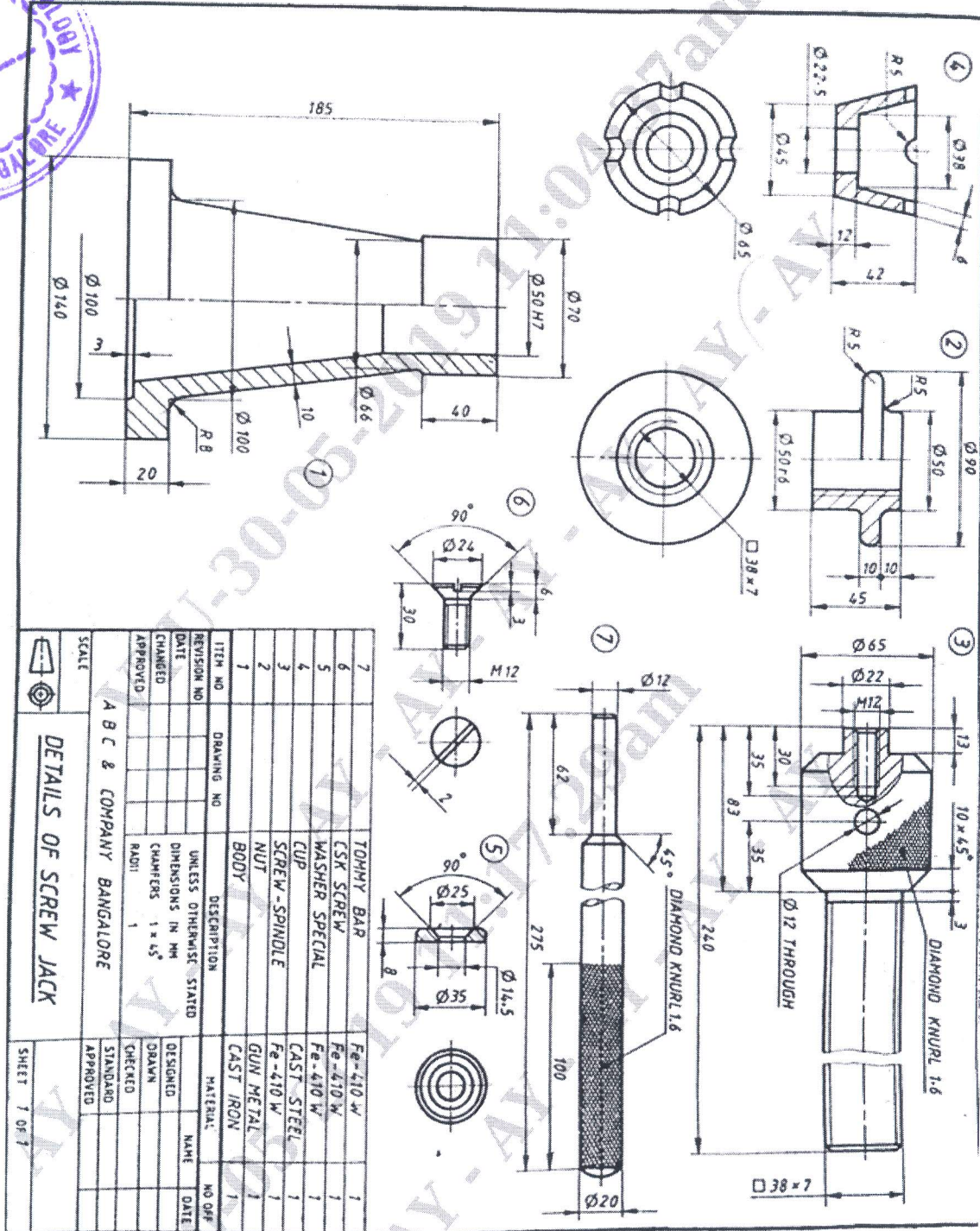
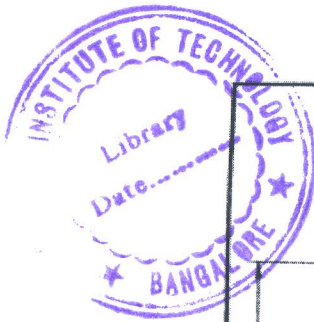


Figure 2:- Plummer Block



ITEM NO	DRAWING NO	DESCRIPTION	MATERIAL	NO OF P
1		BODY	CAST IRON	1
2		NUT	GUN METAL	1
3		SCREW-SPINDLE	Fe-410 W	1
4		CUP	CAST-STEEL	1
5		WASHER SPECIAL	Fe-410 W	1
6		CSK SCREW	Fe-410 W	1
7		TOMMY BAR	Fe-410 W	1

UNLESS OTHERWISE STATED  
DIMENSIONS IN MM  
CHAMFERS  $1 \times 45^\circ$   
RADI

APPROVED  
DESIGNED  
DRAWN  
CHECKED  
STANDARD  
APPROVED

DATE  
NAME  
DATE

SCALE  
DETAILS OF SCREW JACK  
SHEET 1 OF 1

A B C & COMPANY BANGALORE

Figure 3:- Screw Jack