

II B.Tech. I Semester Regular Examinations, November -2006
MACHINE DRAWING
(Common to Mechanical Engineering, Mechatronics, Production Engineering
and Automobile Engineering)

Time: 3 hours

Max Marks: 80

1. Answer any three of the following indicating proportional dimensions on the drawing:
 - (a) A bushed bearing for a shaft of 40mm. dia.
 - (b) Double rivetted Lap-Joint to join plates of 16mm. thickness with (Zig-Zag) rivetting.
 - (c) Flange-coupling to connect shafts of 40mm. dia
 - (d) Different types of keys used in practice.
 - (e) Knuckle Joint to connect shafts of 30mm. dia. [3×10=30]

2. Assemble the parts of plummer block shown in figure below 1 and draw.
 - (a) Half-Sectional front view [25]
 - (b) Top view [15]
 - (c) End view [10]

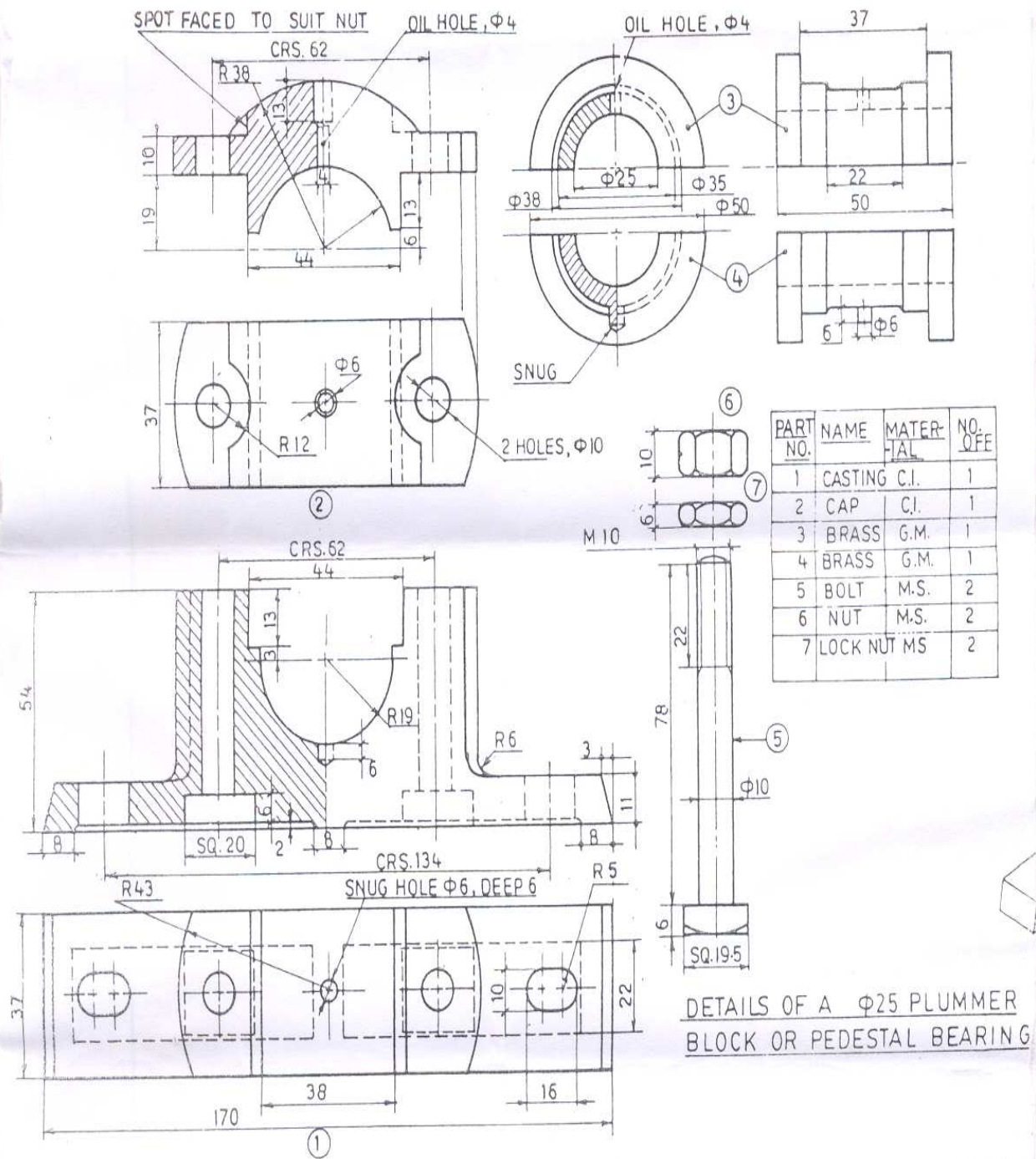


Fig.1. plummer block

Figure 1:

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1. Answer any three of the following by giving proportional dimensions on the drawings.
 - (a) A Foot-Step bearing to carry a shaft of 40mm.dia
 - (b) Treple rivetted Lap-Joint to Join plates of 12 mm. thick using chain type rivetting.
 - (c) Sleeve-type cotter Joint to connect shafts of 30mm. dia.
 - (d) Different types of Nuts used in practice. [3×10=30]
 - (e) An expansion Pipe Joint to connect pipes of 30mm. dia.

2. Assemble the parts of Eccentric shown in figure 2 and draw.
 - (a) Half-Sectional front view [25]
 - (b) Top view [15]
 - (c) Side view [10]

4.	Bolts with nuts	2	C-30	
3.	Shim	2	Brass	
2.	Sheave	1	C.I.	
1.	Straps (in two parts)	1	C.I.	
No.	Name of part	No. off	Material	Remark

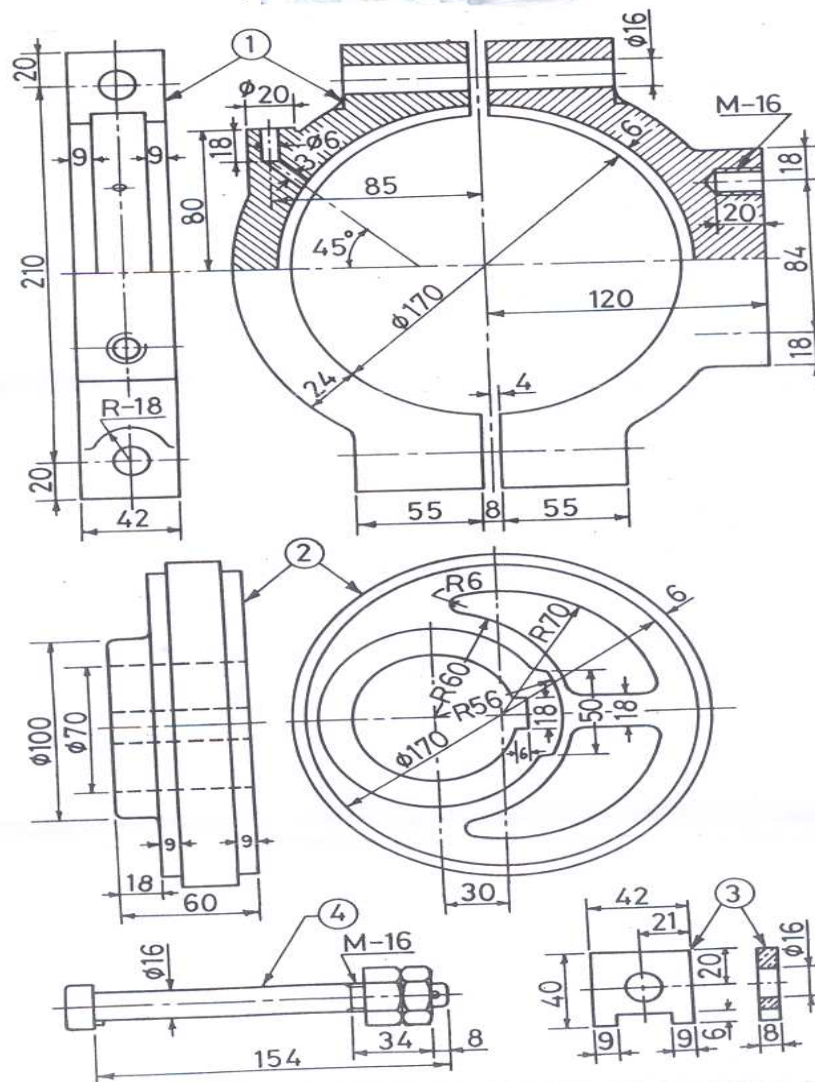


Figure 2:

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1. Answer any three of the following by indicating the proportional dimensions on the drawing. [3×10=30]
 - (a) A Muff Coupling to connect shafts of 40mm.dia.
 - (b) Double-riveted Single cover butt joint (Zig-Zag) to join plates of 16mm. thickness.
 - (c) Split-muff coupling to join shafts of 30mm. dia.
 - (d) Knuckle thread, Acme thread and Buttress thread.
 - (e) Socket and Spigot Joint to connect Shafts of 40mm. dia

2. Assemble the parts of Strap-type connecting rod end and draw.(figure 3)
 - (a) Half-Sectional front view [25]
 - (b) Half-Sectional top view [15]
 - (c) Right hand side view [10]

6.	Set screw	1	C-30	
5.	Gib	2	C-30	
4.	Cotter	1	C-30	
3.	Rod end	1	Alloy steel	
2.	Brasses (in two halves)	1	Gun-metal	
1.	Strap	1	C-30	
No.	Name of part	No. off	Material	Remark

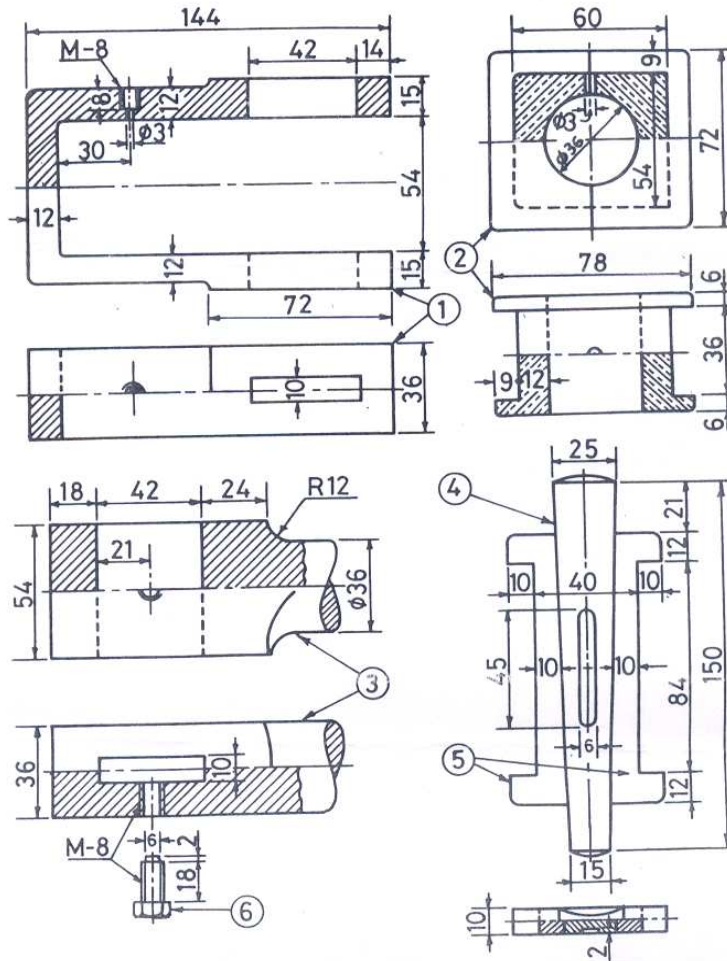


Figure 3:

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Time: 3 hours

Max Marks: 80

1. Answer any three of the following, indicating proportional dimensions on the drawing.

[3×10=30]

- (a) A simple journal bearing to connect a shaft of 40mm. dia
 - (b) Double rivetted double cover butt joint (chain rivetting) to connect plates of 20mm. thickness.
 - (c) Half-Lap muff-coupling to connect shafts of 35mm. dia.
 - (d) Hook-bolt, T-bolt and
 - (e) Gib and Cotter Joint to connect Square Shafts of 35mm. side.
2. Assemble the parts of box-type connecting rod end shown in figure 4 and draw.
- (a) Half-Sectional front view [25]
 - (b) Sectional top view [15]
 - (c) Left-hand Side view [10]

4.	Bolts with nuts	2	C-30	
3.	Cap	1	Alloy steel	
2.	Brasses (in two halves)	1	Brass lined with white-metal	
1.	Rod end	1	Alloy steel	
No.	Name of part	No. off	Material	Remark

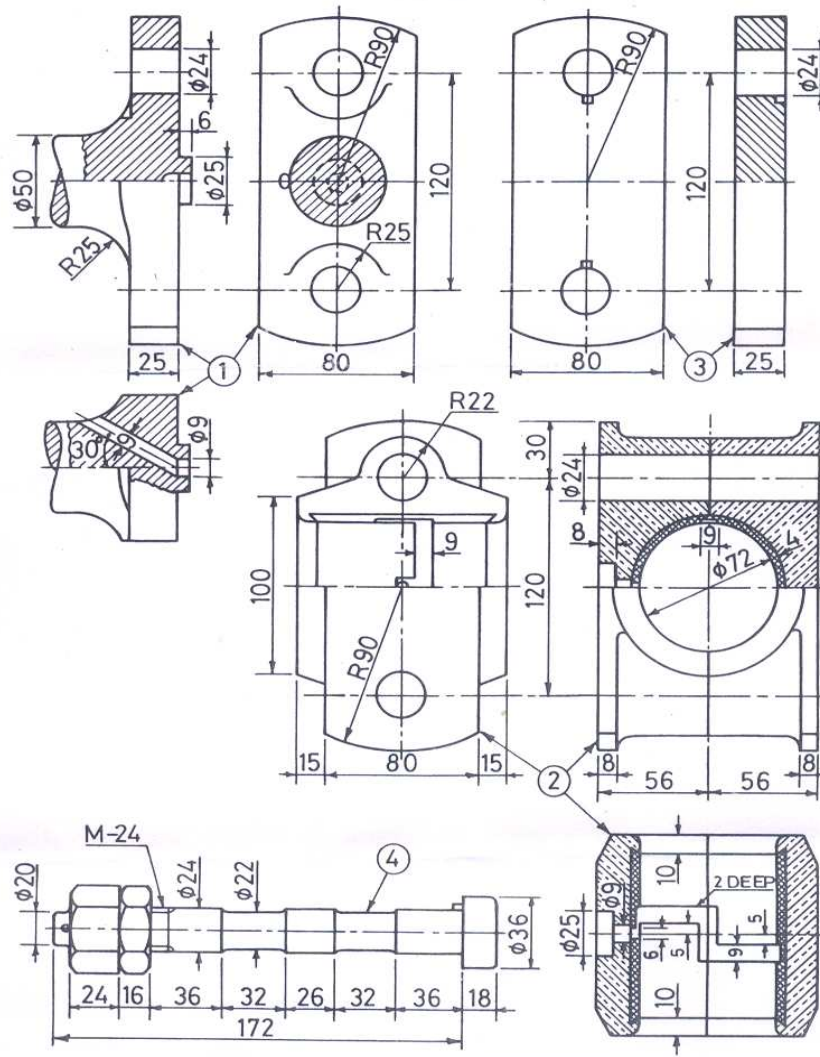


Figure 4: