

**II B.Tech. I Semester Supplementary Examinations, February -2007**  
**MACHINE DRAWING**  
 ( Common to Mechanical Engineering, Mechatronics, Production Engineering  
 and Automobile Engineering)

**Time: 3 hours****Max Marks: 80**

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1. Answer any Two of the following by drawing proportionate diagrams:
  - (a) Single riveted, double strap butt joint for plates of 12 mm thickness with cover plate thickness of 10 mm
  - (b) Muff coupling to connect two shafts of 50mm diameter.
  - (c) Foot step bearing for a shaft of 75 mm diameter. [15×2=30]
  
2. Details of Screw Jack are given in the figure1 . Draw the following views of the Screw Jack with all the parts assembled together: [50]
  - (a) Sectional front view
  - (b) Top view
  - (c) Right side view.

Part list

Part No.	Name	Material	Quantity
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1	Casting	C.I	1
2	Nut	Gun metal	1
3	Screw	M.S.	1
4	Cup	Cast steel	1
5	Washer	M.S.	1
6	Set Screw	M.S.	1
7	Tommy bar	M.S.	1

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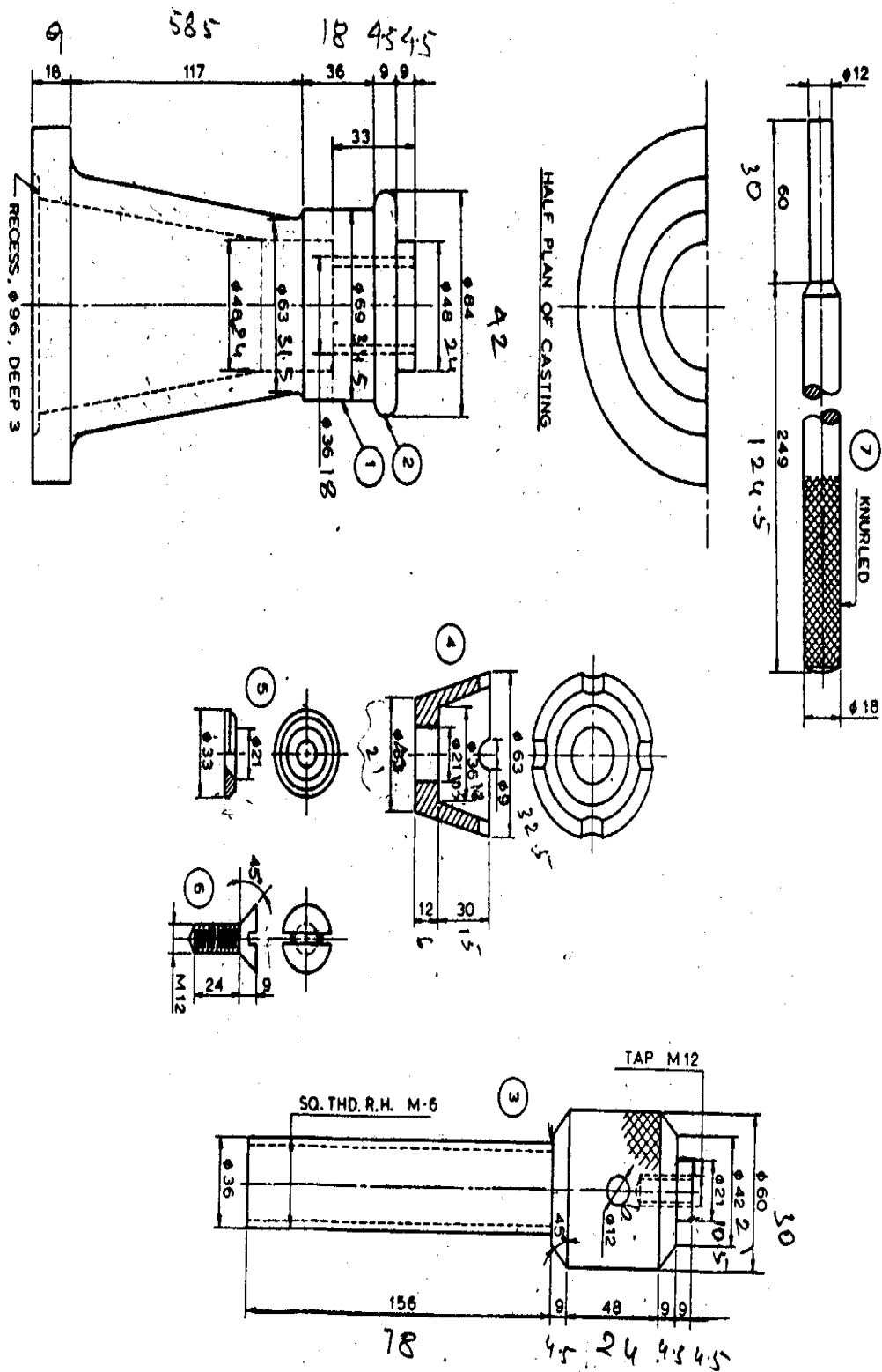


Figure 1:

Screw jack

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1. Answer any Two of the following by drawing proportionate diagrams: [15×2=30]

- (a) Triple riveted single strap zig-zag butt joint to connect two plates of 12mm thick.
- (b) Flange coupling to connect to shafts of 20 mm diameter.
- (c) Journal bearing for a shaft of 30 mm diameter.

2. Figure 2 shows all the parts of an eccentric. [50]

Assemble all the parts and draw the following views:

- (a) Sectional front view.
- (b) Right side view.

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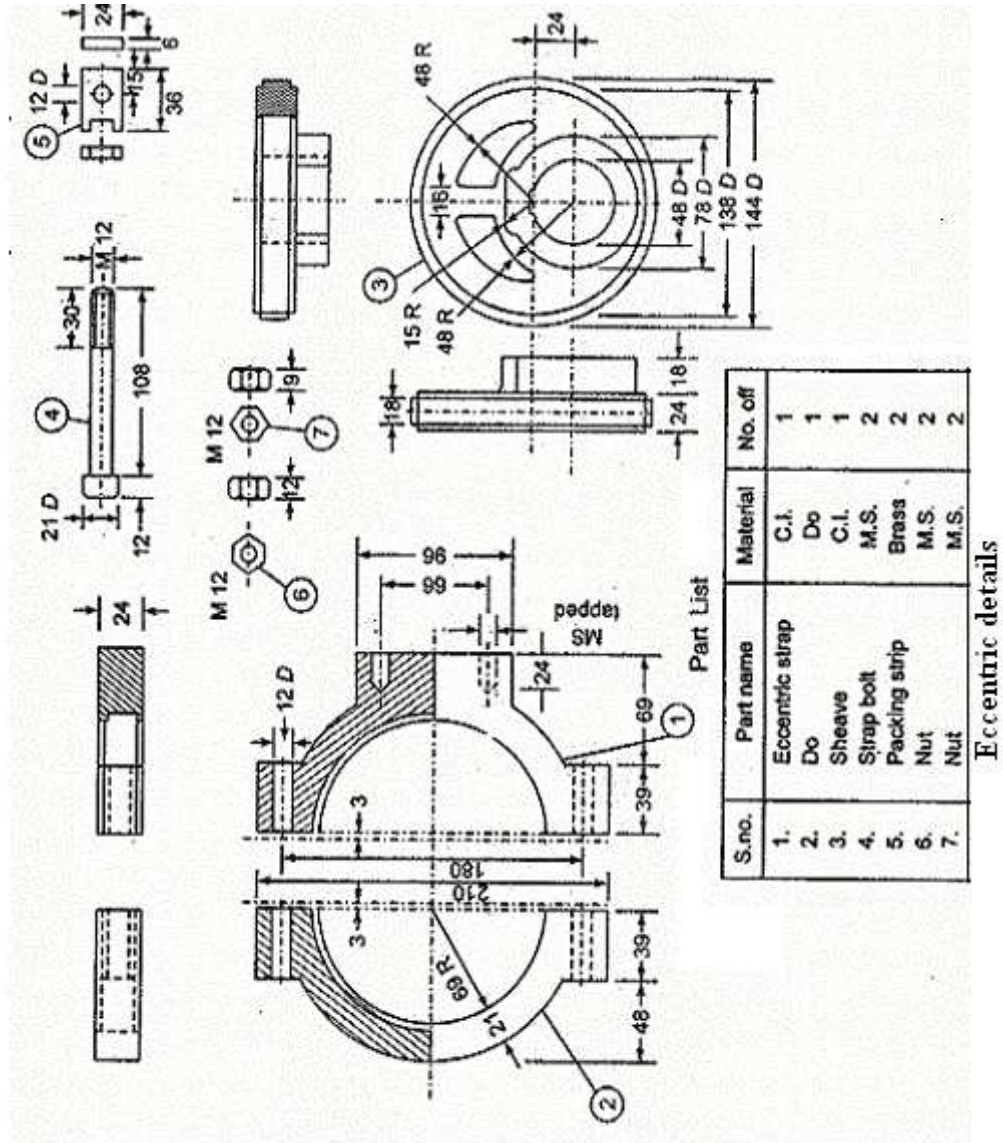


Figure 2:

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1. Answer any Two of the following by drawing proportionate diagrams: [15×2=30]
  - (a) Double riveted chain type lap joint to connect to plates of 15 mm thick.
  - (b) Spigot and Socket type joint to a suitable scale.
  - (c) Collar bearing to connect two shafts of 40 mm diameter.
  
2. The details of Cross Head are given in figure3 . Draw the following assembled views: [50]
  - (a) Half sectional front view
  - (b) Simple top view
  - (c) Simple side view.

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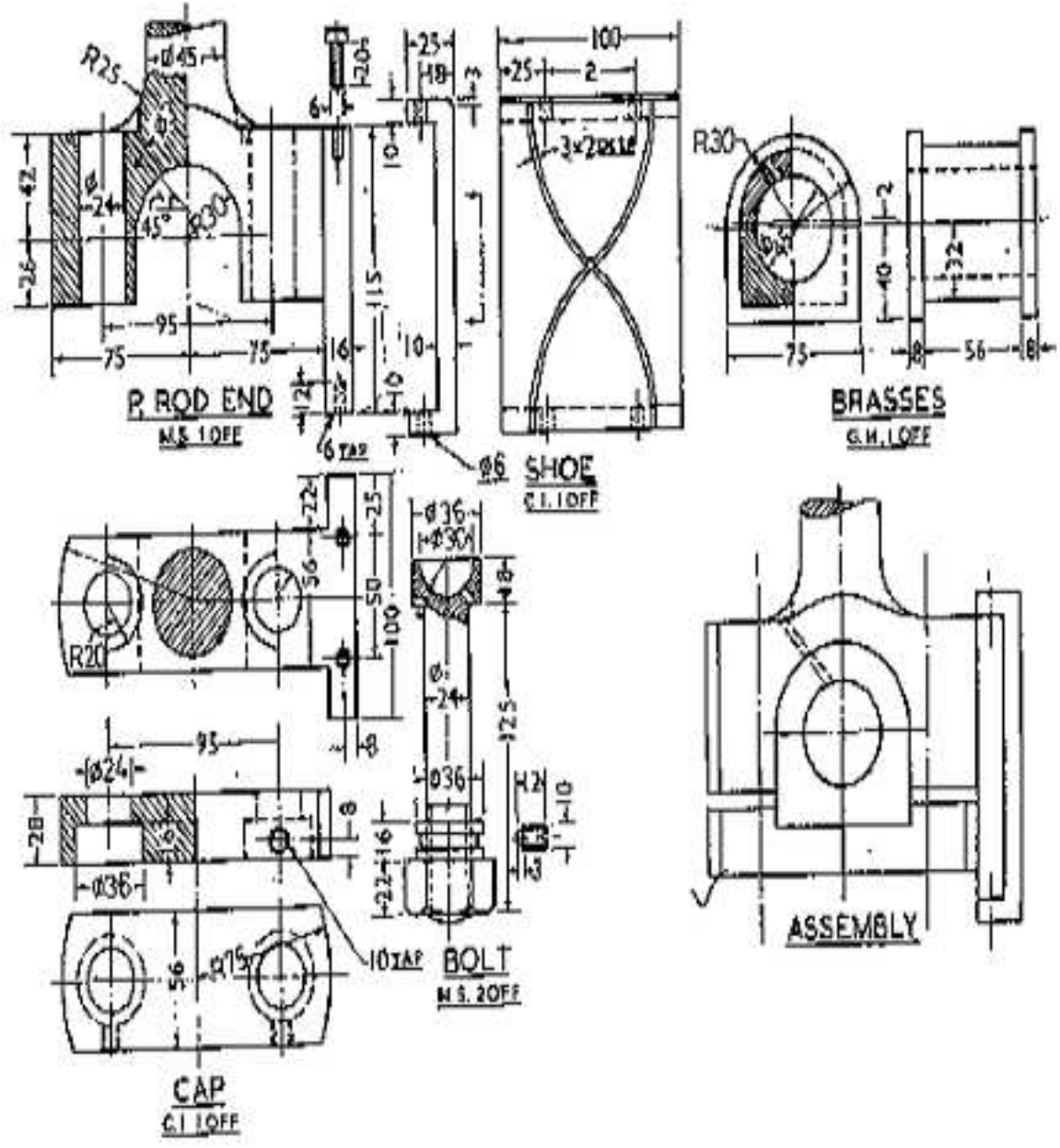


Figure 3:

Cross head

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1. Answer any Two of the following by drawing proportionate diagrams: [15×2=30]
  - (a) Double riveted butt joint to join two plates of 15 mm thick.
  - (b) Two views of taper sunk key positioned in a shaft of suitable diameter.
  - (c) Sleeve type cotter joint to connect two shafts 25 mm diameter.
  
2. Figure 4 gives the part drawings of Plummer block. The details of the Plummer block are shown below: [50]

*PartList :*

S.No.	Part Name	Material	Number of parts
1	Body	CI	1
2	Cap	CI	1
3	Upper Brass	GM	1
4	Lower Brass	GM	1
5	Square Head bolt	MS	2
6	Nut and lock nut	MS	2 each

Assemble all the parts and draw the following assembled views:

- (a) Sectional front view
- (b) Top view.

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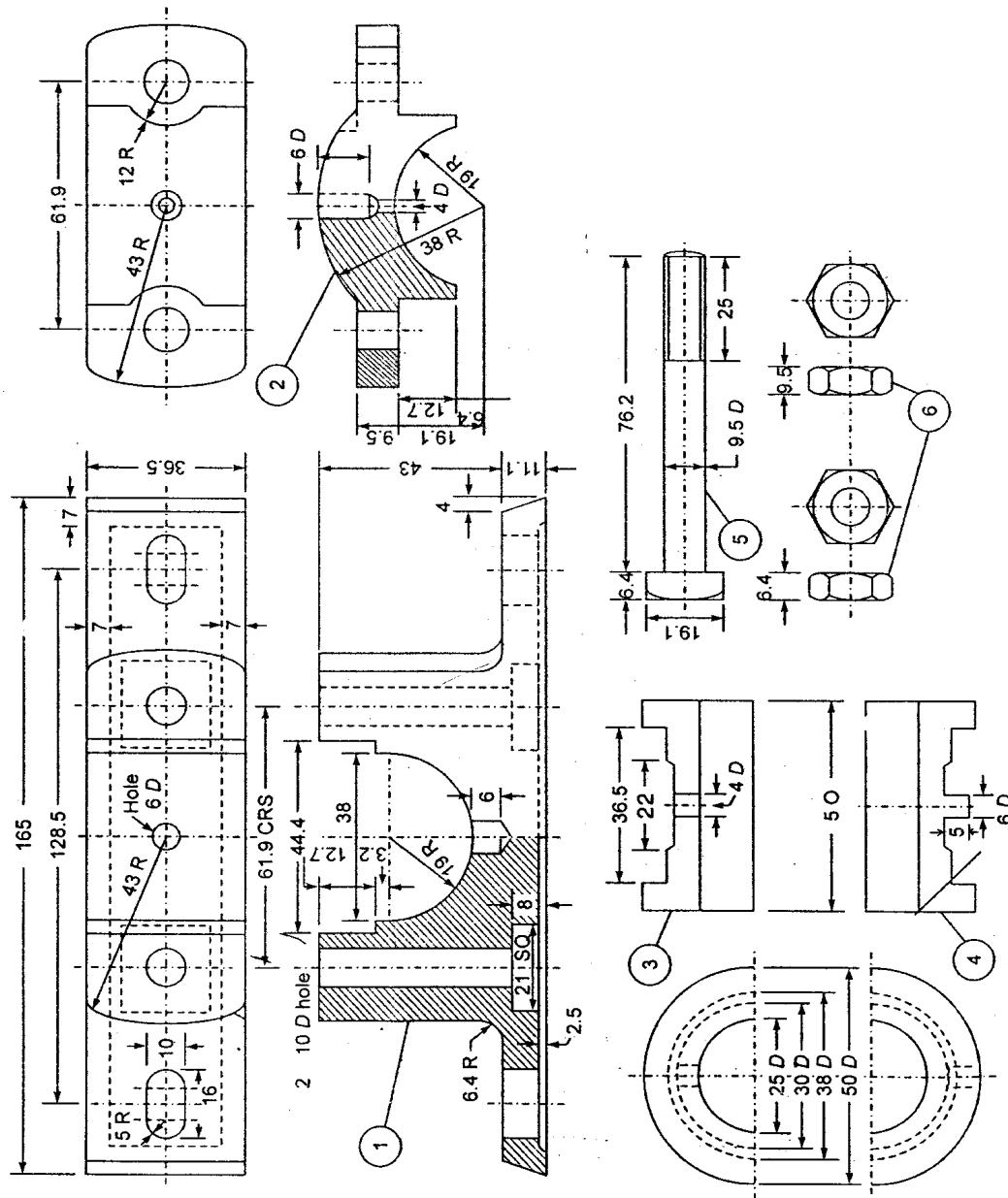


Figure 4:

Plummer Block