

II B.Tech. I Semester Supplementary Examinations, March -2006
MACHINE DRAWING
 (Common to Mechanical Engineering, Mechatronics, Production Engineering
 and Aeronautical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. Sketch any TWO of the following:
 - (a) Draw the sectional front view and top view of single riveted butt joint with double straps chain type to join two plates of thickness 10 mm each.
 - (b) Draw the half sectional front view and side view of a cotter joint with sleeves, to connect to rods of 50 mm diameter each.
 - (c) Draw half sectional front view with top half in section and the side view of a bushed pin type of flanged coupling, connecting two shafts of 50 mm diameter each. [2x15=30]

2. Details of a Screw Jack are given in the figure 1.
 Assemble all parts and draw
 - (a) Half Sectional front view (Right half in section)
 - (b) Right side view and
 - (c) Top view [50]

PartList

Part No.	Name	Material	Quantity
1	Casting	CI	1
2	Nut	Gun metal	1
3	Screw	MS	1
4	Cup	Cast steel	1
5	Washer	MS	1
6	Set scew	MS	1
7	Tommy bar	MS	1

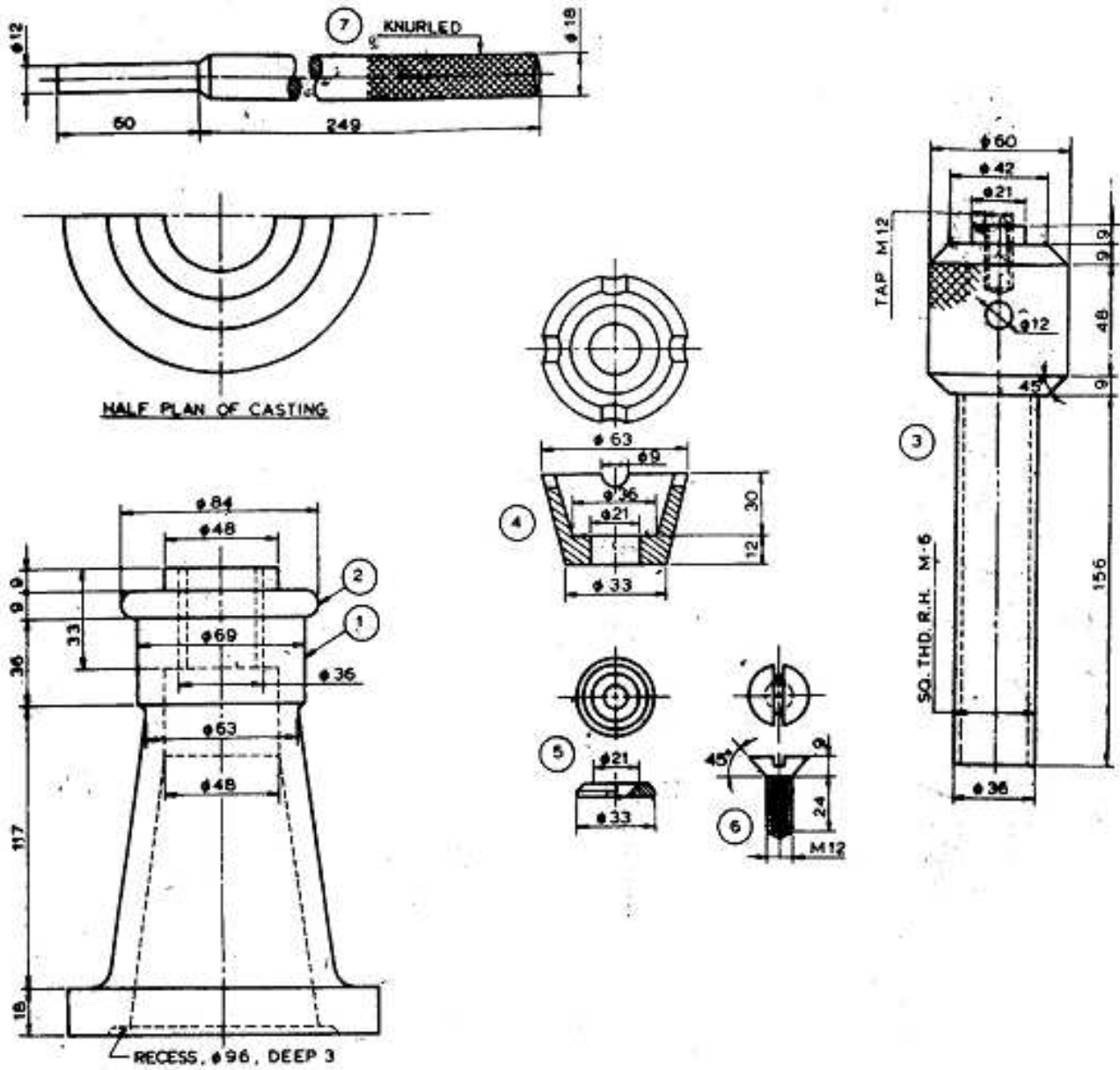


Figure 1:

8.

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1. Sketch any TWO of the following:
 - (a) Draw the sectional front view and top view of double riveted butt joint with single straps zig zag type to join two plates of thickness 10 mm each.
 - (b) Draw the half sectional front view with top half in section and the side view of a socket and spigot cotter joint to connect to rods of 50 mm diameter each.
 - (c) Draw half sectional front view with top half in section and the side view of a muff coupling, connecting two shafts of 30 mm diameter each. [2x15=30]

2. Details of a Stuffing Box are given in the figure 2.
Assemble all parts along with piston rod in position and draw
 - (a) Half Sectional front view with left half in section,
 - (b) Right side view and
 - (c) Top view [50]

Partlist

Part	Name	Material	Quantity
1	Body	CI	1
2	Bush	Brass	1
3	Gland	Brass	1
4	Stud	MS	2
5	Nut	MS	2

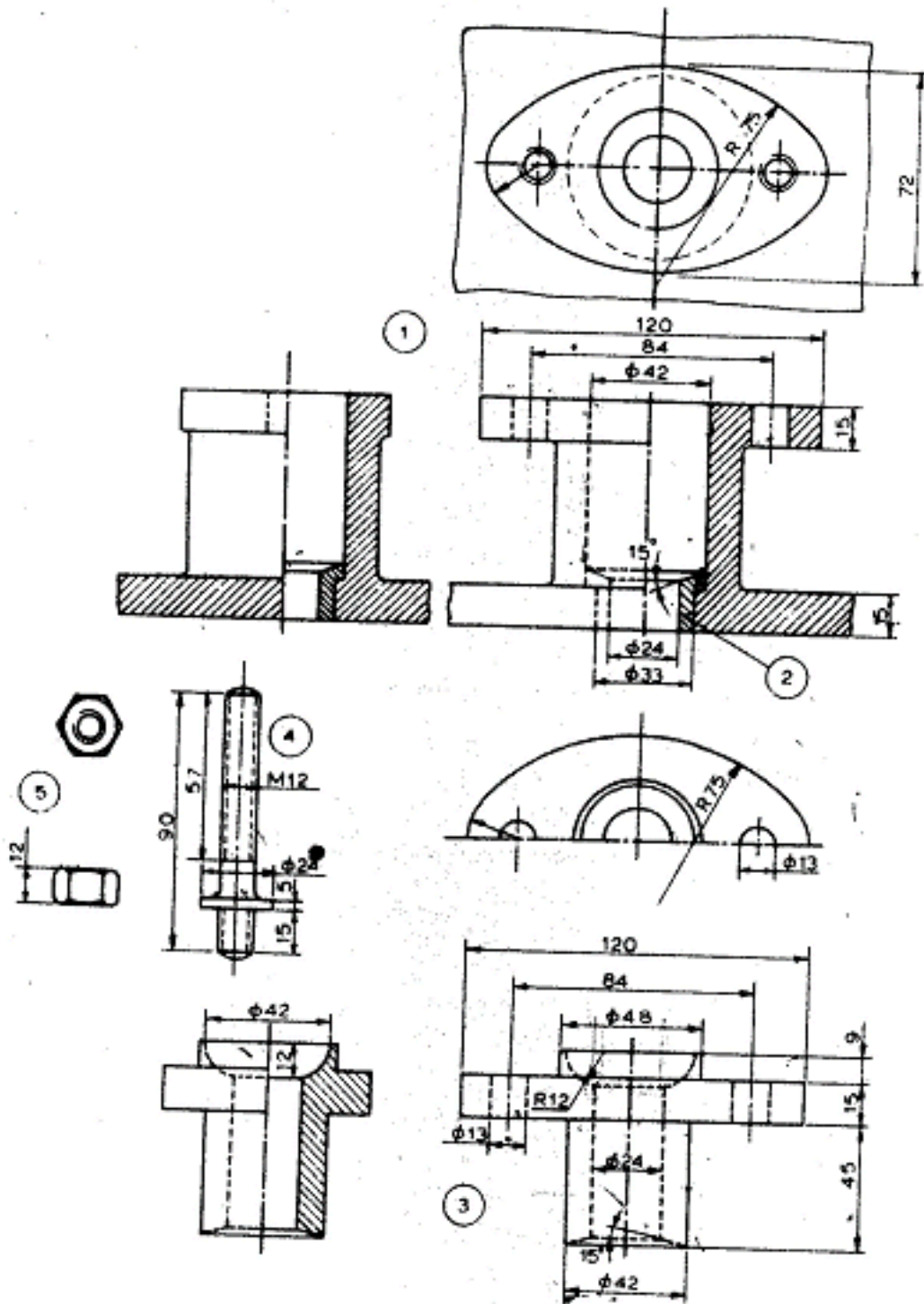


Figure 2:

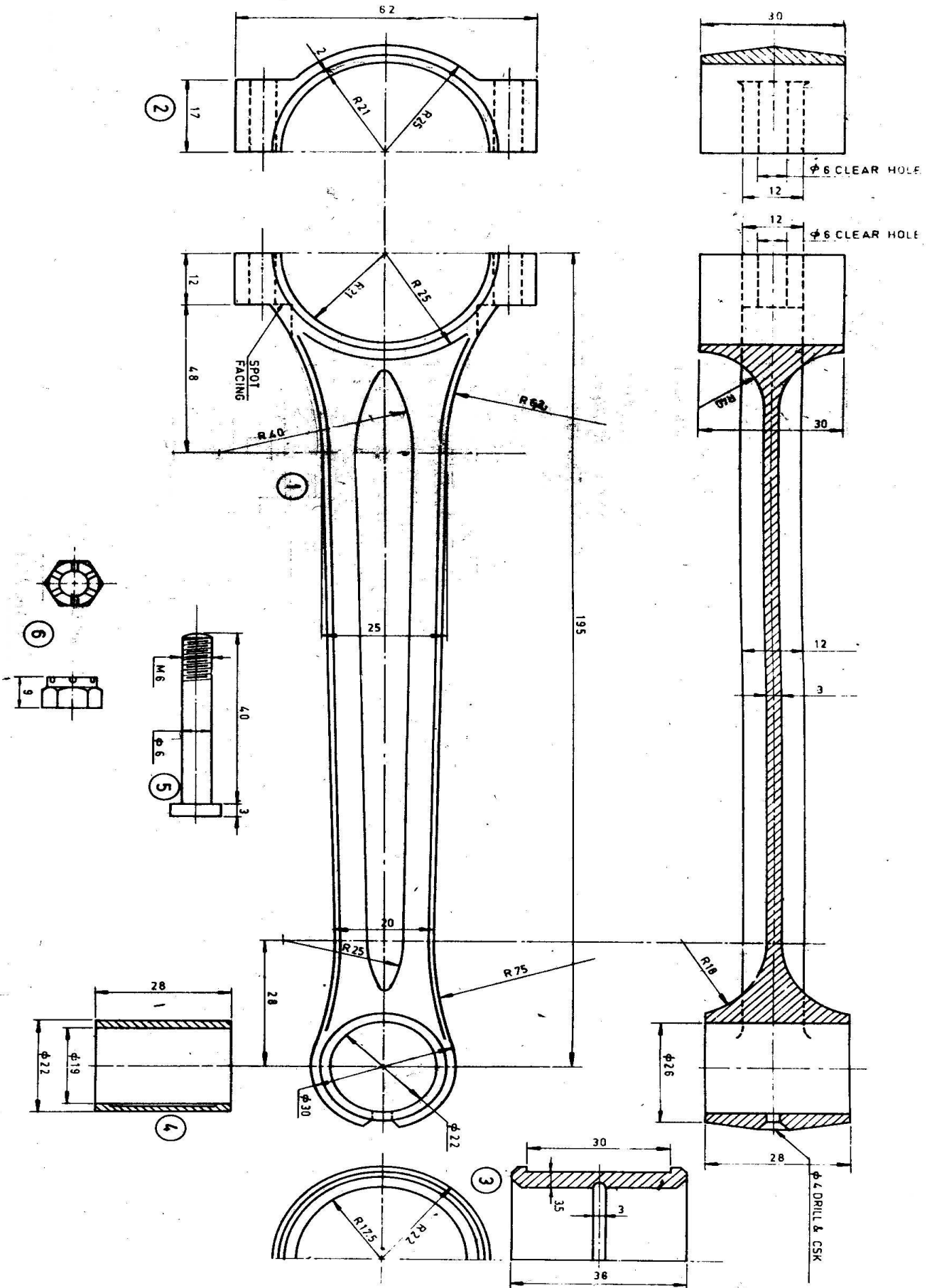
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1. Sketch any TWO of the following:
 - (a) Draw the sectional front view and top view of double riveted butt joint with double strap chain type to join two plates of thickness 10 mm each.
 - (b) Draw the half sectional front view with top half in section and side view of a cotter joint with a gib, to connect to rods of 50 mm diameter each.
 - (c) Draw half sectional front view and the top view of a universal coupling, connecting two shafts of 50 mm diameter each. [2x15=30]

2. The details of the petrol engine connecting rod are shown in figure 3. Draw the following assemble views
 - (a) Front elevation
 - (b) Sectional Plan
 - (c) Two side views [50]

PartList

Part No.	Name	Material	Quantity
1	Rod	Forged steel	1
2	Cap	Forged steel	1
3	Bearing brass	Gun metal	2
4	Bearing bush	Phosphor bronze	1
5	Bolt	Medium carbon steel	2
6	Nut	Medium carbon steel	2



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1. Sketch any TWO of the following:
 - (a) Draw the sectional front view and top view of double riveted lap joint with zigzag type to join two plates of thickness 10 mm each.
 - (b) Draw the sectional front view top view of a knuckle joint with sleeves, to connect to rods of 50 mm diameter each.
 - (c) Draw half sectional front view with top half in section and the side view of a flanged coupling, connecting two shafts of 25 mm diameter each. [2x15=30]

2. The details of an eccentric are shown in figure 4.
 Assemble the parts and draw
 - (a) Front view, top half in section.
 - (b) Left side view.
 - (c) Top view. [50]

PartList

Part No.	Name	Material	Quantity
1	Eccentric Strap	CI	1
2	Eccentric Strip	CI	1
3	Sheave	CI	1
4	Strap bolt	MS	2
5	Packing strip	Leather	2
6	Nut	MS	2
7	Nut	MS	2

