

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

**Time: 3 hours**

**Max Marks: 80**

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1. Answer any Two of the following: [2 × 10 = 20]

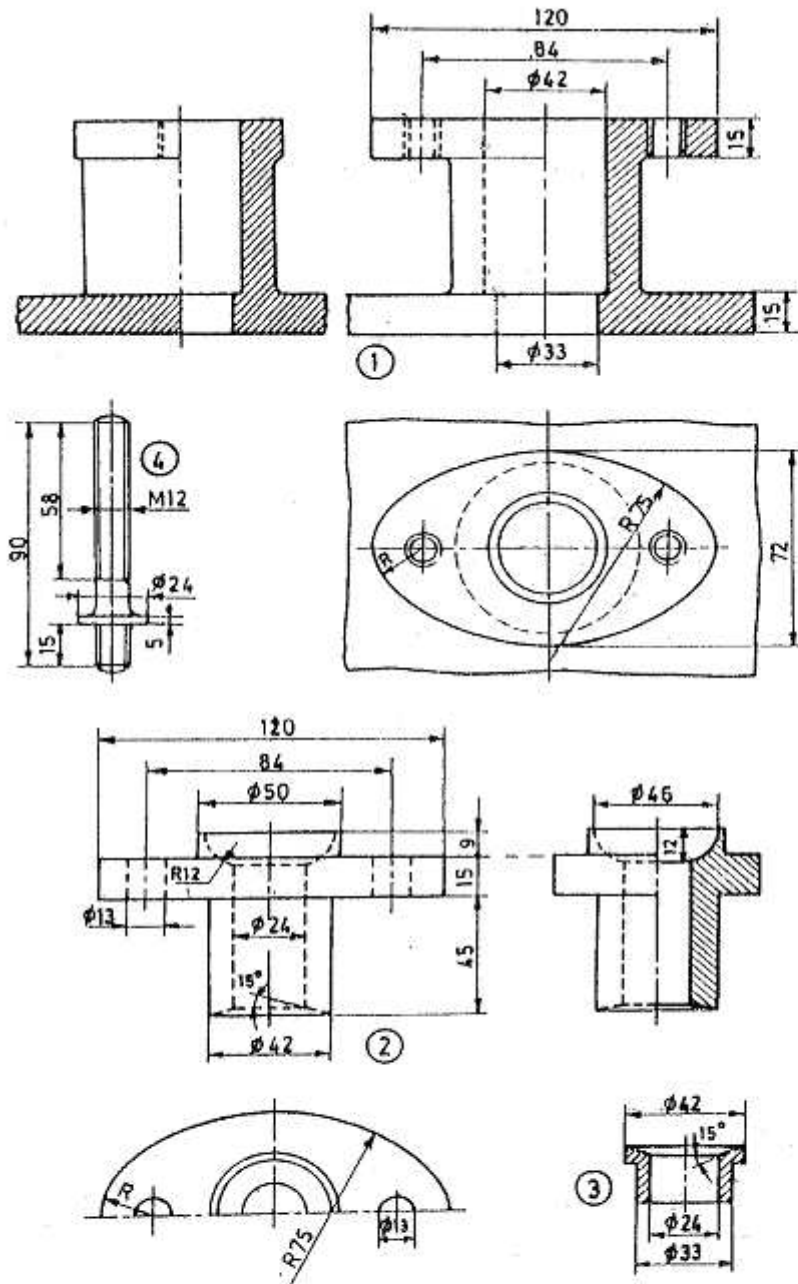
- (a) Draw plan and sectional elevation of a chain type double - riveted lap joint.  
Take the diameter of rivet as 18 mm.
- (b) Sketch a Knuckle joint showing sectional front view and top view to connect  
two rods of 40 mm diameter.
- (c) Draw half sectional view from the front and side view of a muff coupling to  
connect two shafts of 30 mm diameter.

2. Draw the following assembled views of a stuffing box shown in figure 1 [60]

- (a) Elevation right half in section
- (b) Plan.

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## Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Gland	Brass	1
3	Bush	Brass	1
4	Stud	MS	2
5	Nut, M12	MS	2

Thickness of hexagonal nut - 12mm

All dimensions are in mm.

## Stuffing Box

Figure 1:

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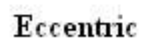
1. Answer any Two of the following: [2 × 10 = 20]

- (a) Draw any plan and side view of square nut and bolt with mean diameter of 30 mm.
- (b) Draw half sectional front view and side view of a rigid flange coupling to connect two shafts of 30 mm diameter.
- (c) Sketch two views of cotter joint with a gib to connect two square rods of side 30 mm with proper dimensions.

2. Assemble the parts and draw the following views of an eccentric shown in figure 2.

- (a) Front view, top half in section.
- (b) Left side view.
- (c) Top view. [60]

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2 of 2

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1. Answer any Two of the following: [2 × 10 = 20]

- (a) Draw front view with top half in section and side view of a socket and spigot type of cotter joint to connect two rods of 25 mm diameter each.
- (b) Draw sectional front view and top view of double riveted, double cover butt joint, zig-zag riveting to join plates of thickness 16 mm.
- (c) Draw proportionately a hexagonal bolt with nut. Take the diameter of the bolt as 25 mm.

2. Figure 3 shows the details of a spring-loaded safety valve. Draw the following assembly. [60]

- (a) Front view full in section
- (b) Left side view
- (c) Top view.

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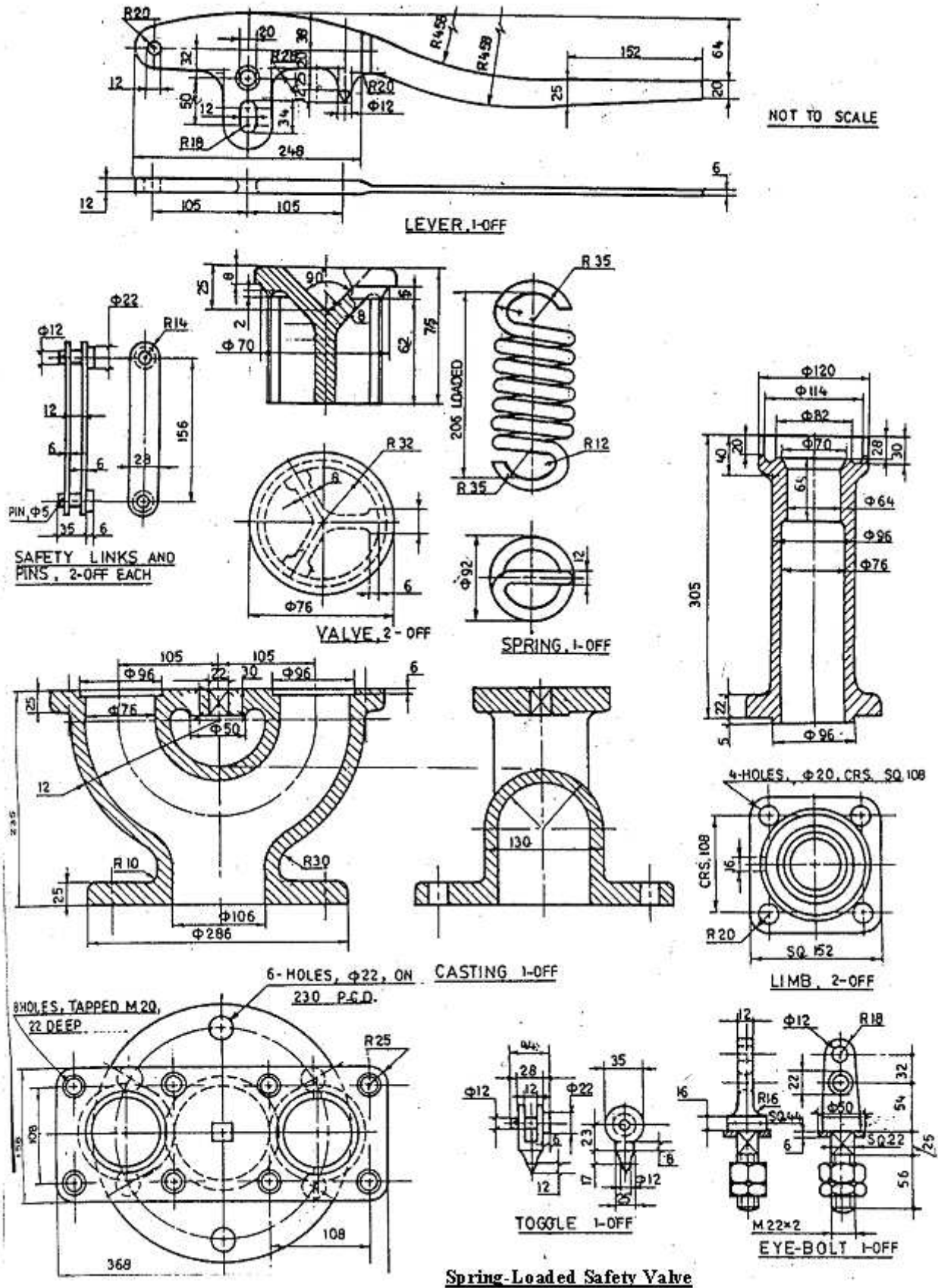


Figure 3:

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1. Answer any Two of the following: [2 × 10 = 20]
  - (a) Draw half sectional view from the front and side view of a flange coupling to connect two shafts of 25 mm diameter.
  - (b) Draw plan and sectional elevation of double riveted lap joint, chain riveting, taking 12mm diameter rivet.
  - (c) Draw half sectional front view and side view of a foot step bearing for 40 mm diameter.
2. Details of a machine vice are given in Figure 4 Assemble the parts and draw the following views.
  - (a) Front view, full in central section.
  - (b) Top view
  - (c) Right side view Section A-A. [60]

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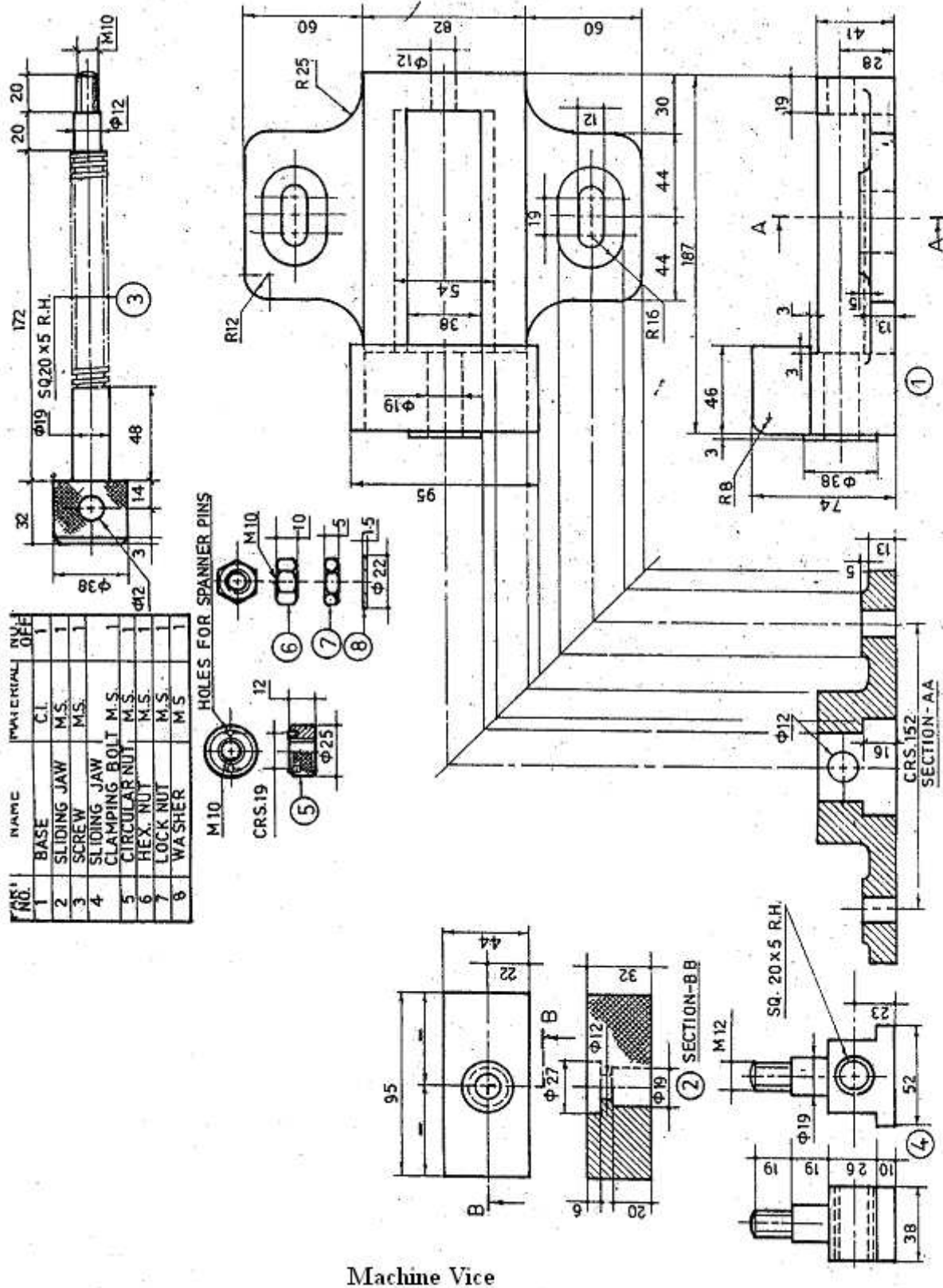


Figure 4: