

Figure 1

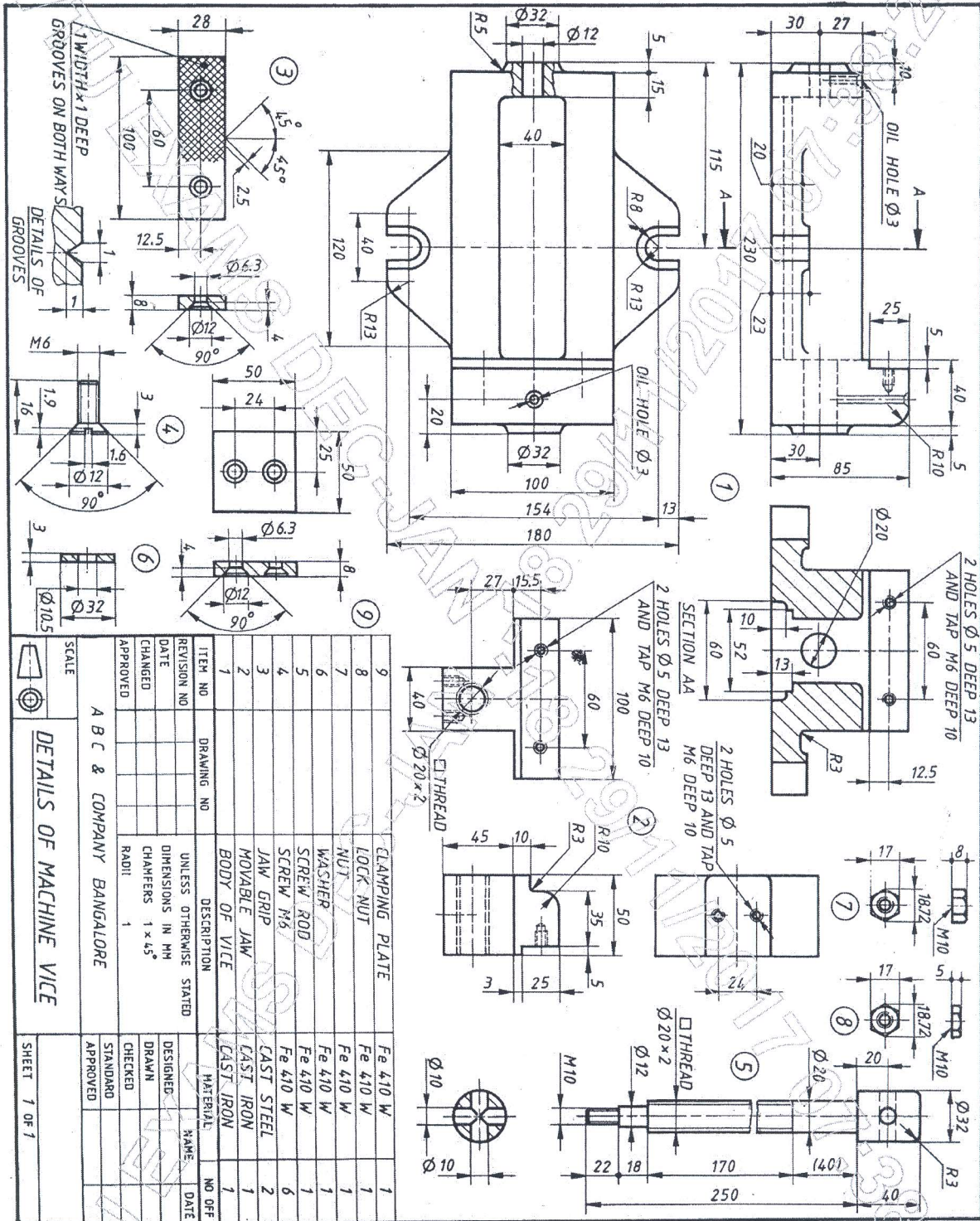


Figure 2

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Fourth Semester B.E. Degree Examination, December 2017

(Automobile 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** projection only.
 3. Missing data if any may suitably be assumed.
 4. All the calculations should be on answer sheet supplied.
 5. All the dimensions are in mm.
 6. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** A cone of base diameter 50mm and axis 70mm long is resting on its base on HP. It is cut by a section plane perpendicular to the VP and inclined at 45° to the HP. The VT of the section plane passes through the axis at a point 35mm above the ground. Draw the sectional view from above, the view from the front and the true shape of section. **(15 Marks)**
- Q.No.2** Draw two views of square headed bolt with nut for a 30mm diameter bolt. Take length of the bolt equal to 125mm. **(15 Marks)**

PART - B

- Q.No.3** Draw the top view and sectional front view of double riveted lap joint with chain arrangement. The thickness of the plate is 9mm. Show at least 3 rivets in each row. **(15 Marks)**
- Q.No.4** Draw the sectional front view of a cotter joint to connect two shafts of diameter 20mm. Indicate dimensions. **(15 Marks)**

PART - C

- Q.No.5** Following figure 1 shows the details of screw jack. Assemble the parts of screw jack and draw i) Front view in half section ii) top view. **(50 Marks)**
- Q.No.6** Details of machine vice are shown in figure 2. Assemble the parts and draw the following views. i) Sectional front view ii) Top view. **(50 Marks)**

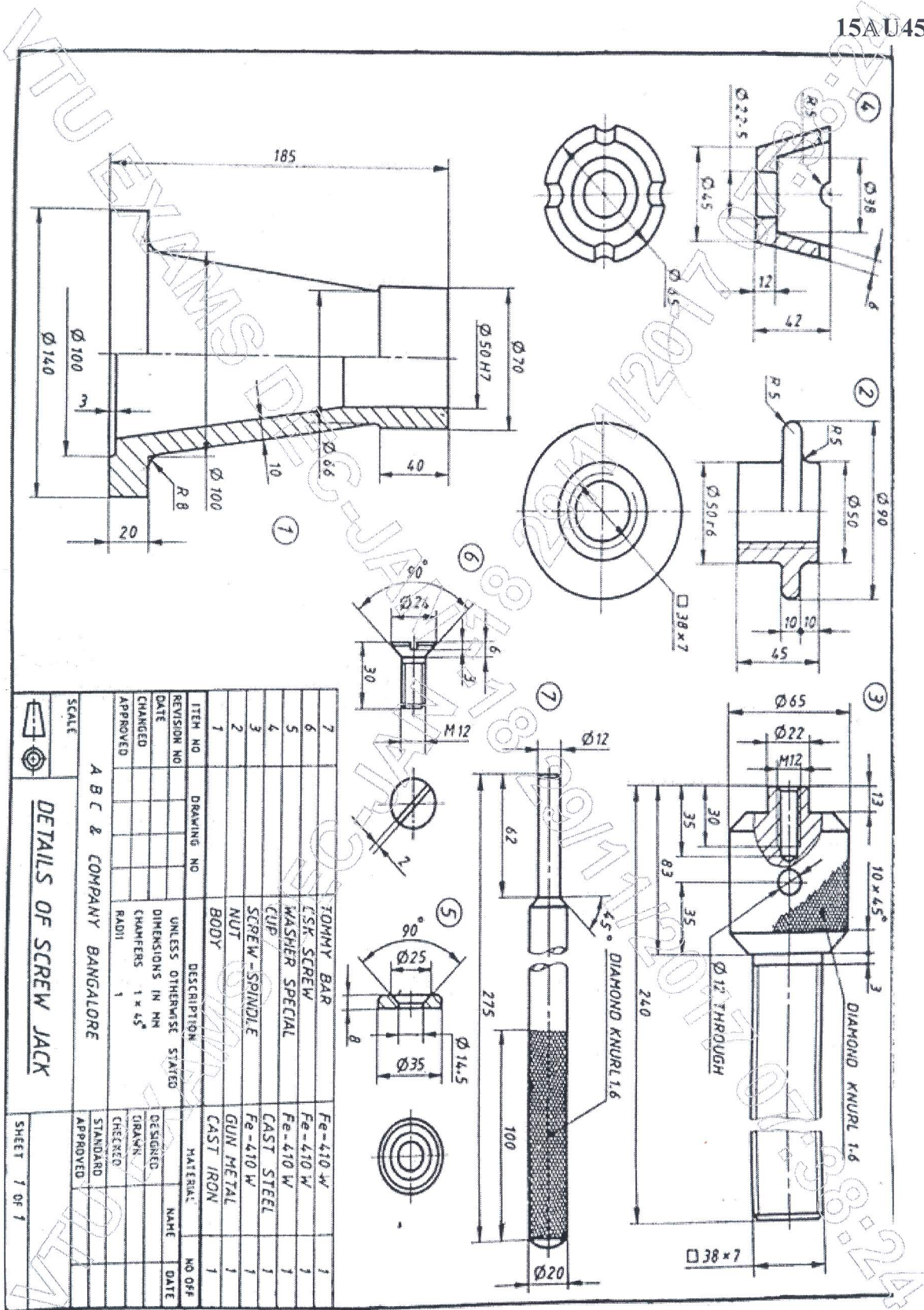


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PART - A

- Q.No.1** Draw the following profiles :
 a) BSW thread b) Sellers thread **(15 Marks)**
- Q.No.2** Draw the orthogonal views for the following figure 1. **(15 Marks)**

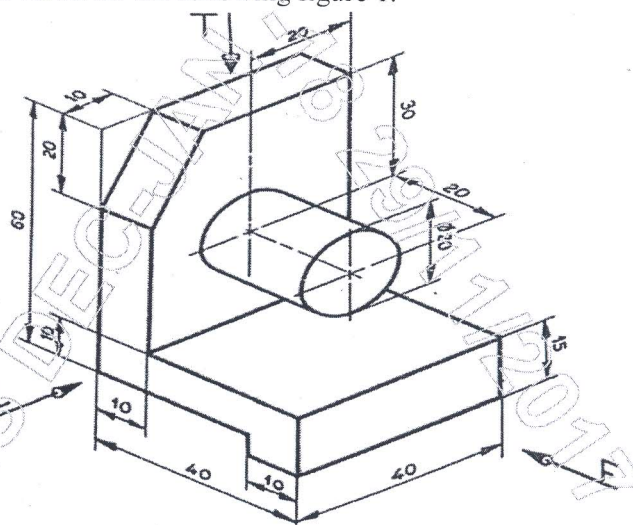


Figure 1

PART - B

- Q.No.3** Draw the top view and sectional front view of single riveted lap joint. The thickness of the plate is 9mm. Show at least 3 rivets in each row. **(15 Marks)**
- Q.No.4** Draw the sectional front view of a knuckle joint to connect two shafts of diameter 20mm. Indicate dimensions. **(15 Marks)**

PART - C

- Q.No.5** Following figure 2 shows the details of Plummer block. Assemble the parts of Plummer block and draw i) Right half sectional view ii) Top view. **(50 Marks)**
- Q.No.6** Details of I C engine piston are shown in figure 3. Assemble the parts and draw the following views. i) Sectional front view ii) Top view. **(50 Marks)**

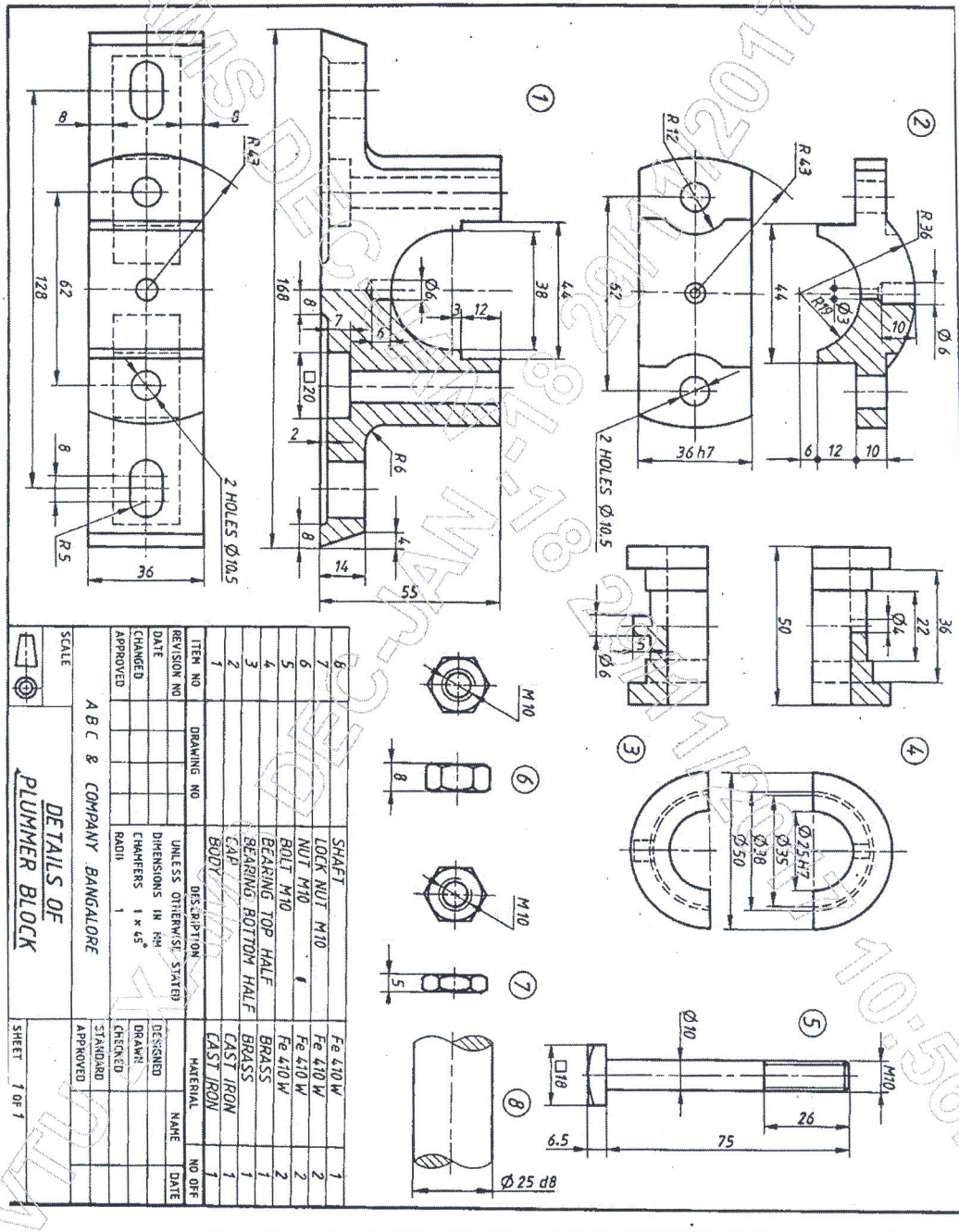


Figure 2