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Sixth Semester B.E. Degree Examination, June/July 2023
(Mechatronics Engineering)

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

Instructions to Candidates:

1. Answer any ONE question from each part
2. Use FIRST ANGLE projection only.
3. Missing data if any may suitably be assumed and mentioned
4. All the dimensions are in mm.
5. Usage of calculators and drawing instruments are allowed

PART - A

1. A cube of 45 mm edge rests on one of its faces on the ground with its base edges equally inclined to the VP. A VT perpendicular to one of the solid diagonals cuts the solid through one of its base corners. Draw the sectional top view, true shape of section and determine the inclination of the section plane with the reference plane. (25 Marks)
2. Figure - 1 shows a machine component. Draw the following views: (a) Front view (b) Side view from left (c) Top view.

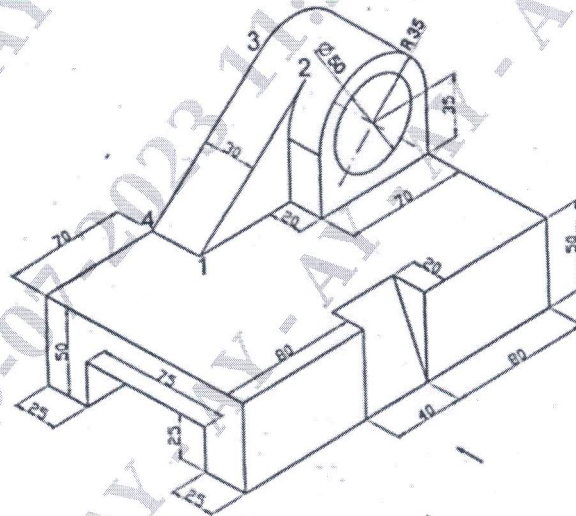


Fig. 1

(25 Marks)

PART - B

3. Draw a Knuckle joint to connect two rods of 25mm diameter showing sectional front view and top view. Indicate all the proportions with dimensions. (25 Marks)
4. Draw the sectional front view and side view of a Protected flange type flexible coupling to connect two rods of diameter 20 mm. Indicate all dimensions. (25 Marks)

PART - C

5. Figure 2 below shows the details of a Plummer block. Assemble The parts of the Plummer block and show the following views
 - a. Half sectional front view showing the left half in section
 - b. Top views(50 Marks)
6. Figure 3 shows the details of a screw jack. Assemble the parts of the screw jack and show the following views
 - a. Half sectional front view showing the right half in section
 - b. Top views(50 Marks)

Details of a Plummer Block

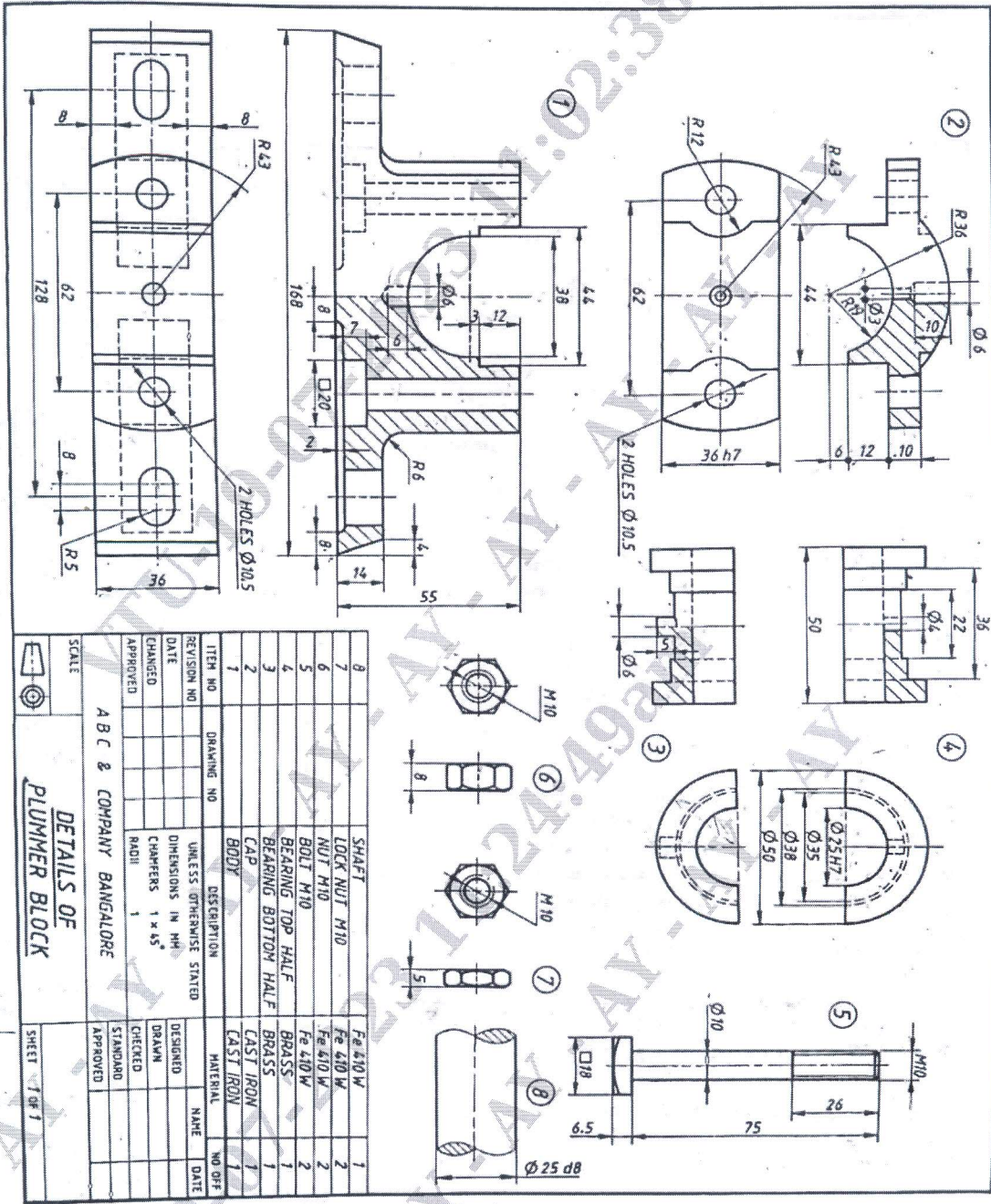
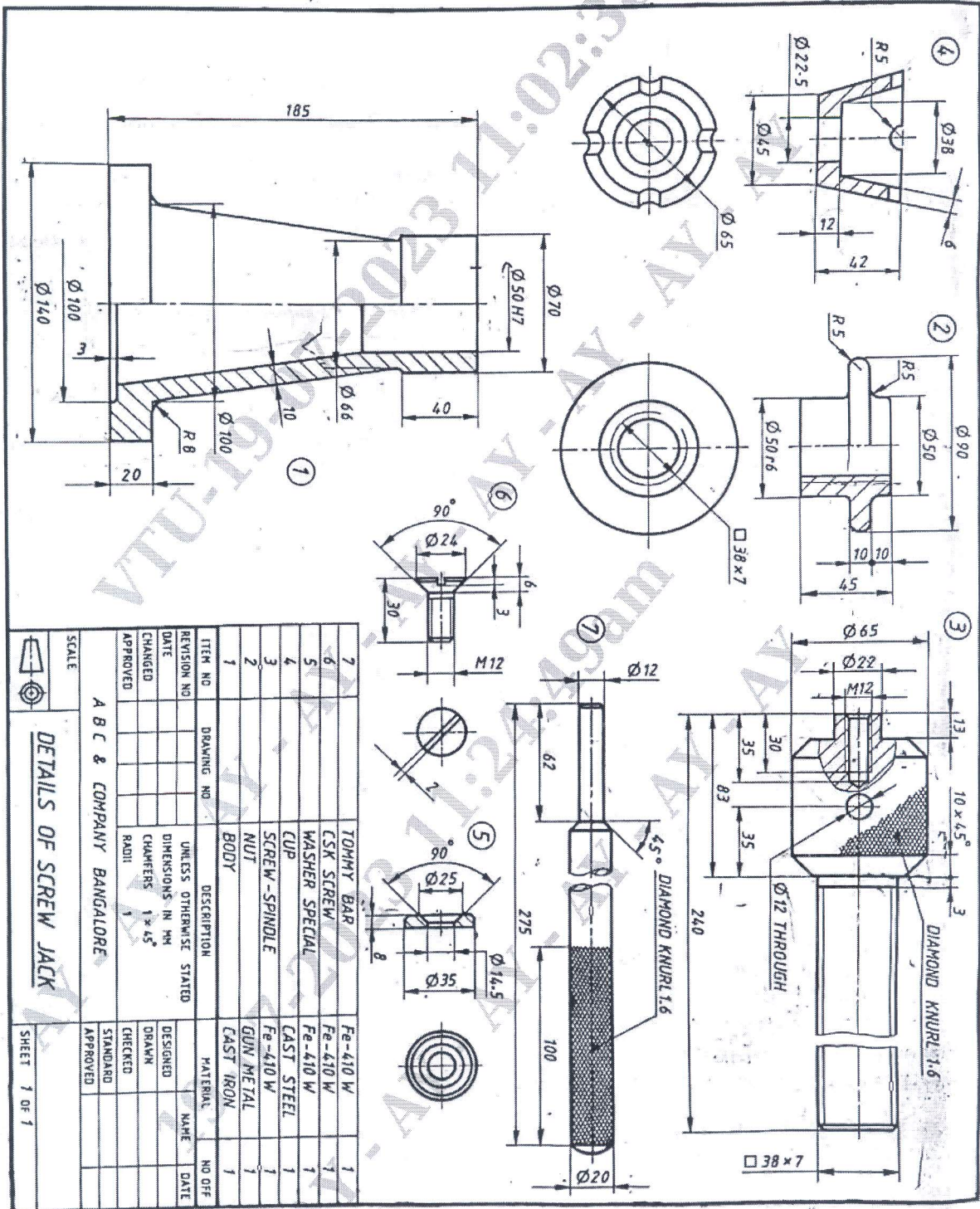


Figure 2: Details of Plummer block



Details of a Screw Jack

Figure 3: Details of Screw jack