USN ☐☐☐☐☐☐☐☐☐☐ 18MT63

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 cone of base diameter 50mm and axis length 65mm rests with its base on the HP. Draw the true shape of section made by a section plane perpendicular to the VP and inclined to the HP at 50° and passing through an end point on the circumference of the base circle of the cone.
(**25 Marks**)

2. Draw the front and side view of square headed bolt of 100mm long, 25mm diameter with a washer and square nut. (**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 Pin type flexible coupling to connect two rods of Diameter 20 mm. Indicate all dimensions. (**25 Marks**)

PART - C

5. Figure 1 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 2 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**)
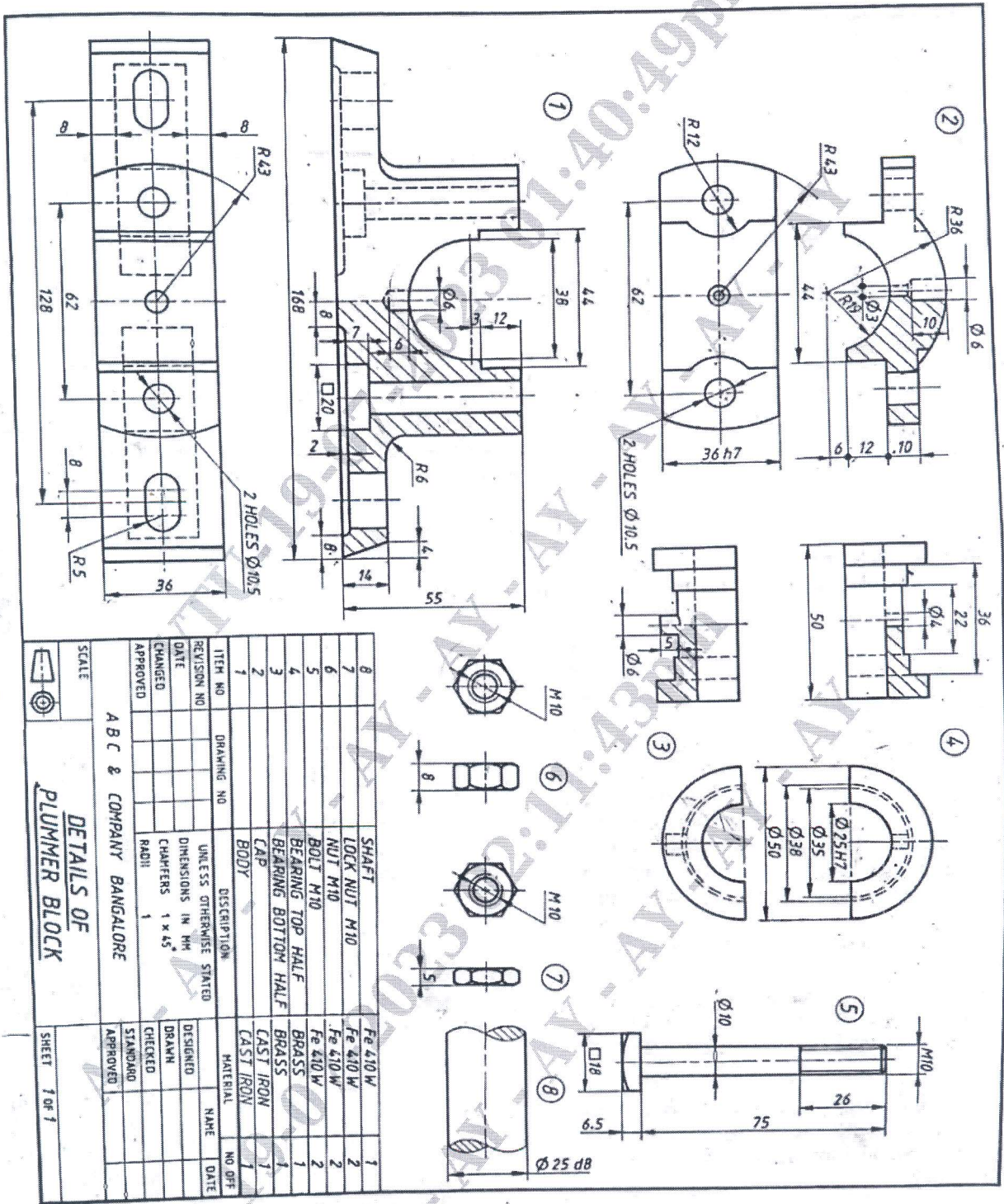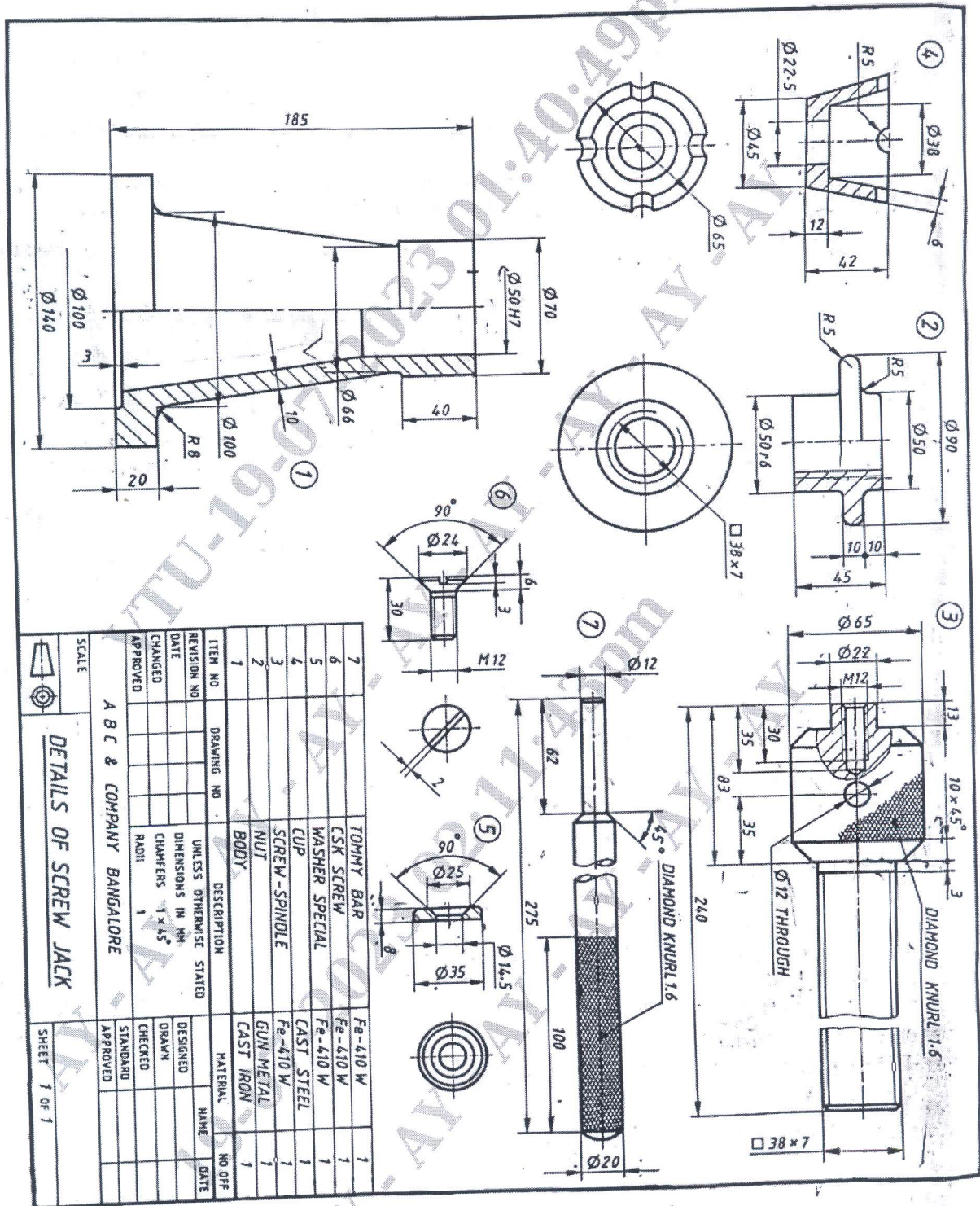
Details of a Plummer Block

Figure 1: Details of Plummer block

Details of a Screw Jack

Figure 2: Details of Screw jack