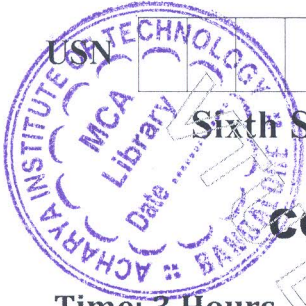


CBCS SCHEME

18MT63



Sixth Semester B.E. Degree Examination, July/August 2022
(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 diameter of base 60mm and axis length 70 mm is resting on its base on the ground. It is cut by two Section planes, one is parallel to contour generator and 10 mm away from it, while the other is parallel to the opposite contour generator. Both cutting planes lean towards the base intersecting each other on the axis of the cone. Draw the sectional plane elevation and the left side view. Also draw the true shape of the section with respect to any one of the section planes. Name the curves thus obtained. **(25 Marks)**
2. Draw the front and side view of iso threaded hexagonal bolt of 100mm long, 20mm diameter and a threaded length of 50mm with a washer and hexagonal 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 Protected flange type flexible coupling to connect two rods of diameter 20 mm. Indicate all dimensions. **(25 Marks)**

PART - C

5. Figure 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 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 Screw Jack

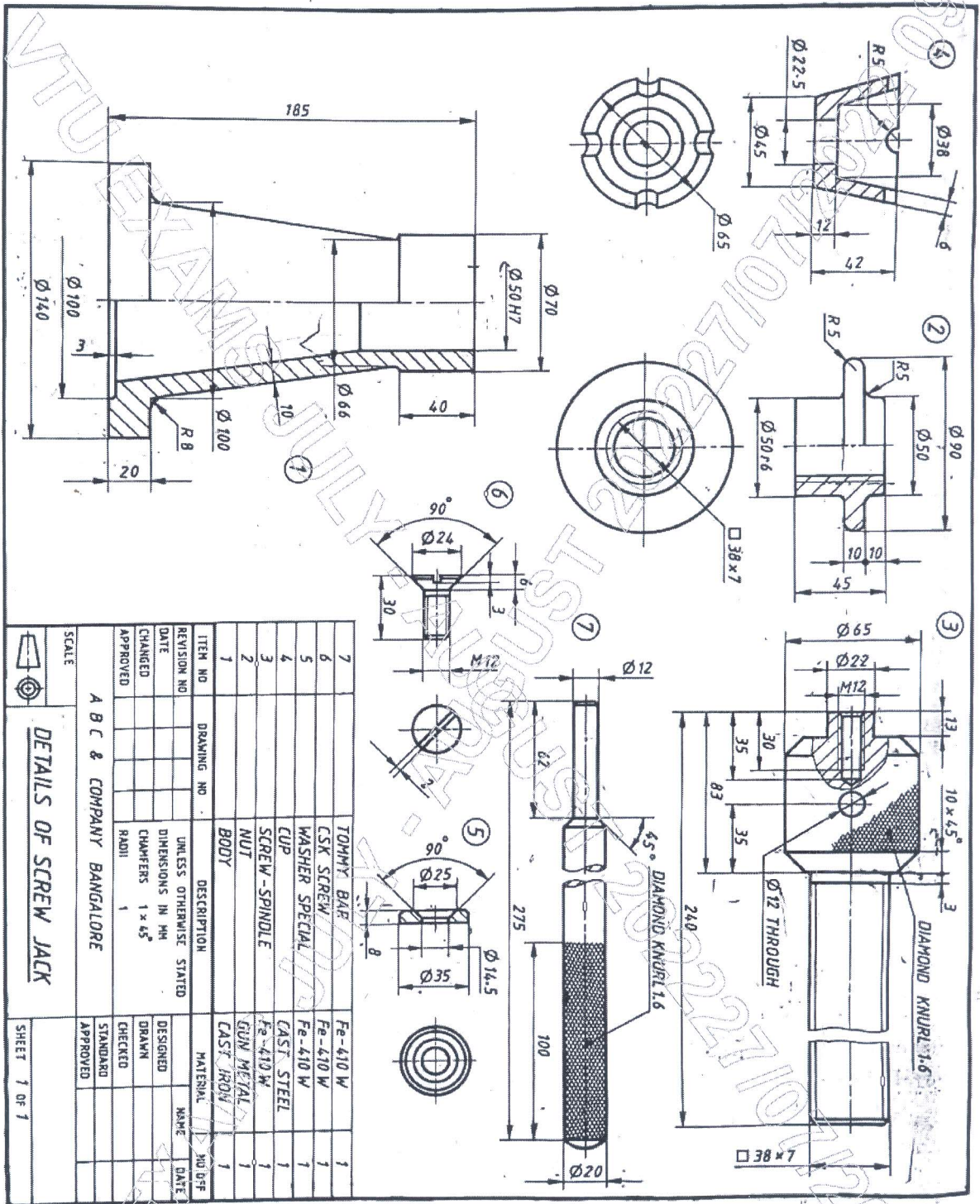


Figure 2: Details of Screw jack