

COMPUTER AIDED MACHINE DRAWING



Time: 3 Hours

Max. Marks: 100

- Note:
1. Answer any ONE question from each of the parts A, B and C.
 2. Use **First angle** projections only.
 3. If any data is missing it may be suitably assumed and mentioned.
 4. All the calculations should be on the answer sheet supplied.
 5. All the dimensions are in mm.
 6. Drawing instruments may or may not be used for sketching.
 7. Part C assembly view should be in 3-D and other views in 2-D.

Part – A

1. An equilateral triangular pyramid of base side 40 mm and height 70mm rests with its base on HP such that one of its slant edge is parallel to VP. A sectional plane perpendicular to VP and inclined at 60° to HP cuts the pyramid by passing through one of its lateral faces at a height of 9mm above HP. Draw the front view, sectional top view and true shape of section. **25 Marks**
2. Draw the profile of
 - a. ISO Screw thread
 - b. ACME thread of pitch 40mm indicate all the proportions and dimensions. **25 Marks**

Part – B

3. Draw the following view of a SOCKET and SPIGOT COTTER JOINT used to joining two rods of diameter 20mm (a) Sectional front view (b) A view looking from socket end. **25 Marks**
4. Draw sectional front view and side view of a Universal Coupling to connect two rods of diameter 20mm, indicate all dimensions. **25 Marks**

Part – C

5. Figure 1 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 view. **50 Marks**
6. Figure 2 shows the part drawing of a tail stock. Assemble the tail stock and show the following views.
 - a. Sectional front view showing the top spindle portion in section.
 - b. Left profile view. **50 Marks**

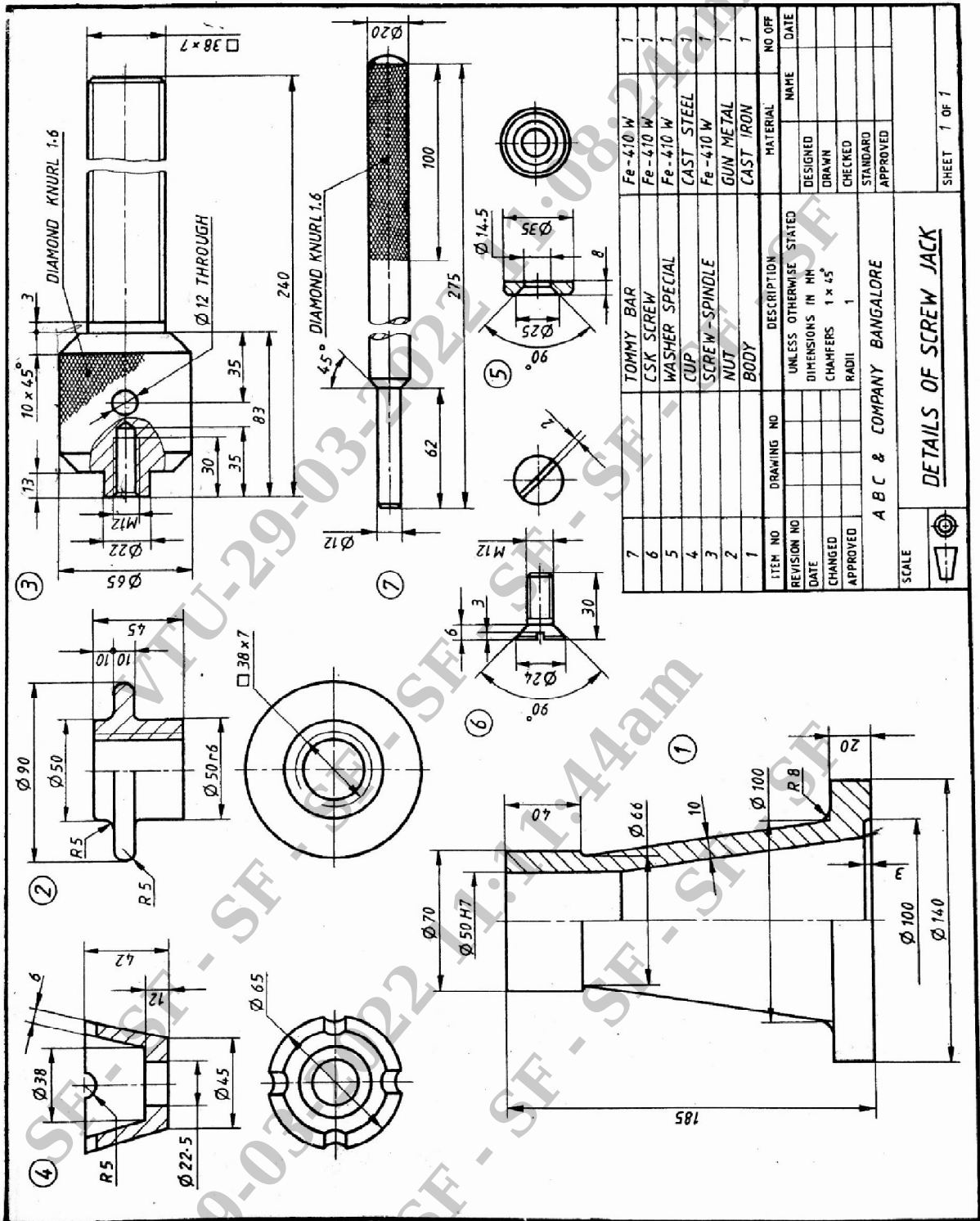


Figure 1: Details of screw jack

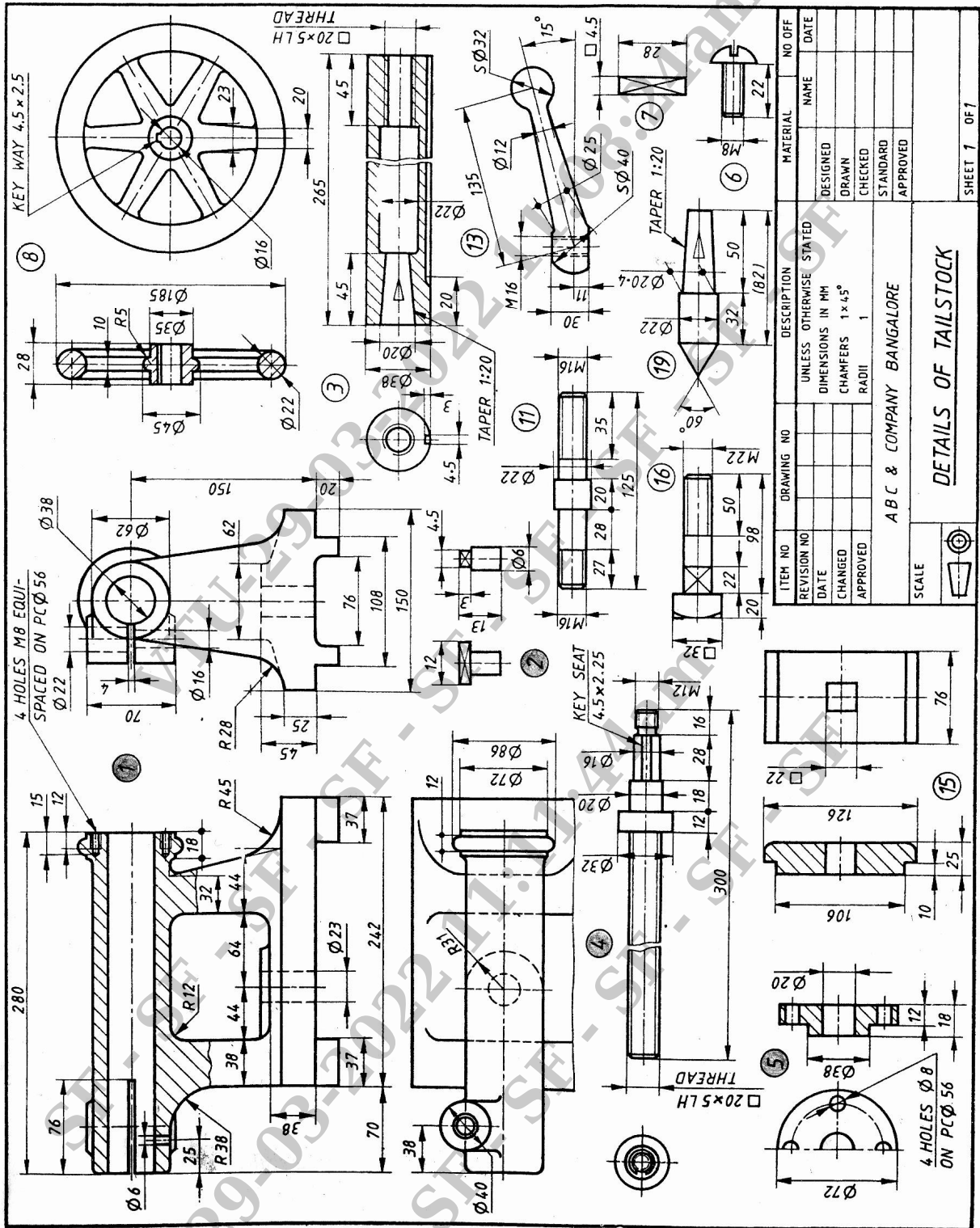


Figure 2: Details of tailstock