

CBCS SCHEME

17ME36A/17ME46A/17MA36

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Third/Fourth Semester B.E. Degree Examination, December 2019
(ME/MA)

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** projection only.
3. If any data is missing it may be suitably assumed and mentioned.
4. All the calculations should be on answer sheet supplied.
5. All the dimensions are in mm.
6. Drawing instruments may or may not be used for sketching.
7. **Part C Assembled View should be in 3D and other 2 views in 2D.**

PART - A

- Q.No.1** A hexahedron of 50mm side rests with a face on HP such that one of its vertical faces is inclined at 30° to VP. A section plane parallel to the VP and perpendicular to the HP cuts the cube at a distance of 20mm from the farthest vertical edge from the observer. Draw its top view, sectional front view and true shape of section.. **(25 Marks)**
- Q.No.2** Draw the three views of an ISO threaded hexagonal head bolt 100mm long, 20mm diameter and thread length of 50mm and square assembly in the axis horizontal position. Show the assembly of bolt and nut in the view across corners. Indicate all actual dimensions.. **(25 Marks)**

PART - B

- Q.No.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)**
- Q.No.4** Draw sectional front view and side view of Oldham's coupling to connect two rods of diameter 25mm, indicate all dimensions. **(25 Marks)**

PART - C

- Q.No.5** Figure 1 shows the details of a Machine vice. Assemble the parts of the Machine vice and show the following views.
a. Half sectional front view b. Top view **(50 Marks)**
- Q.No.6** Figure 2 shows the part drawing of a "RAMS BOTTOM SAFETY VALVE". Assemble parts and show the following views.
a. Sectional front view b. Top view **(50 Marks)**

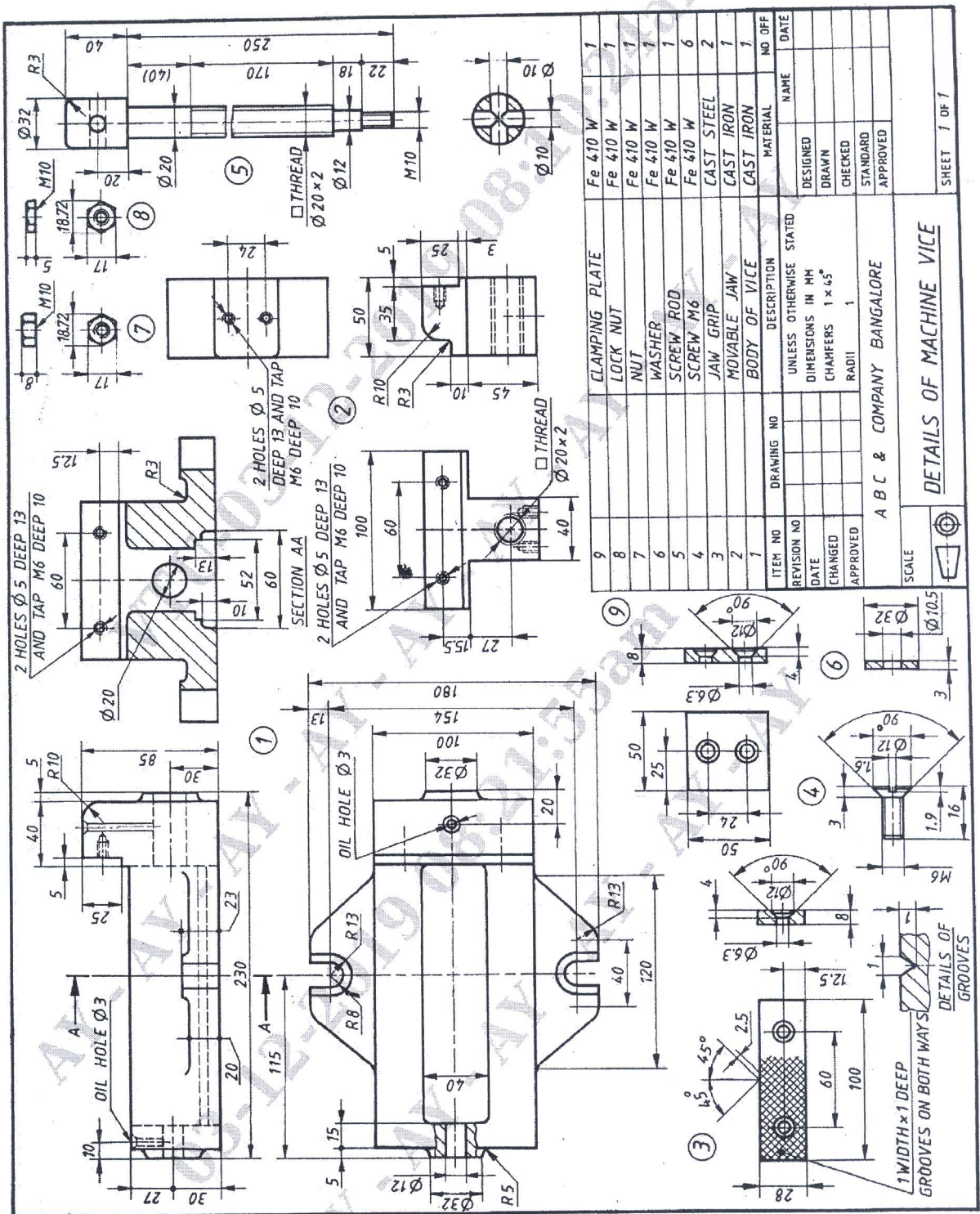


Figure 1: Details of Machine vice

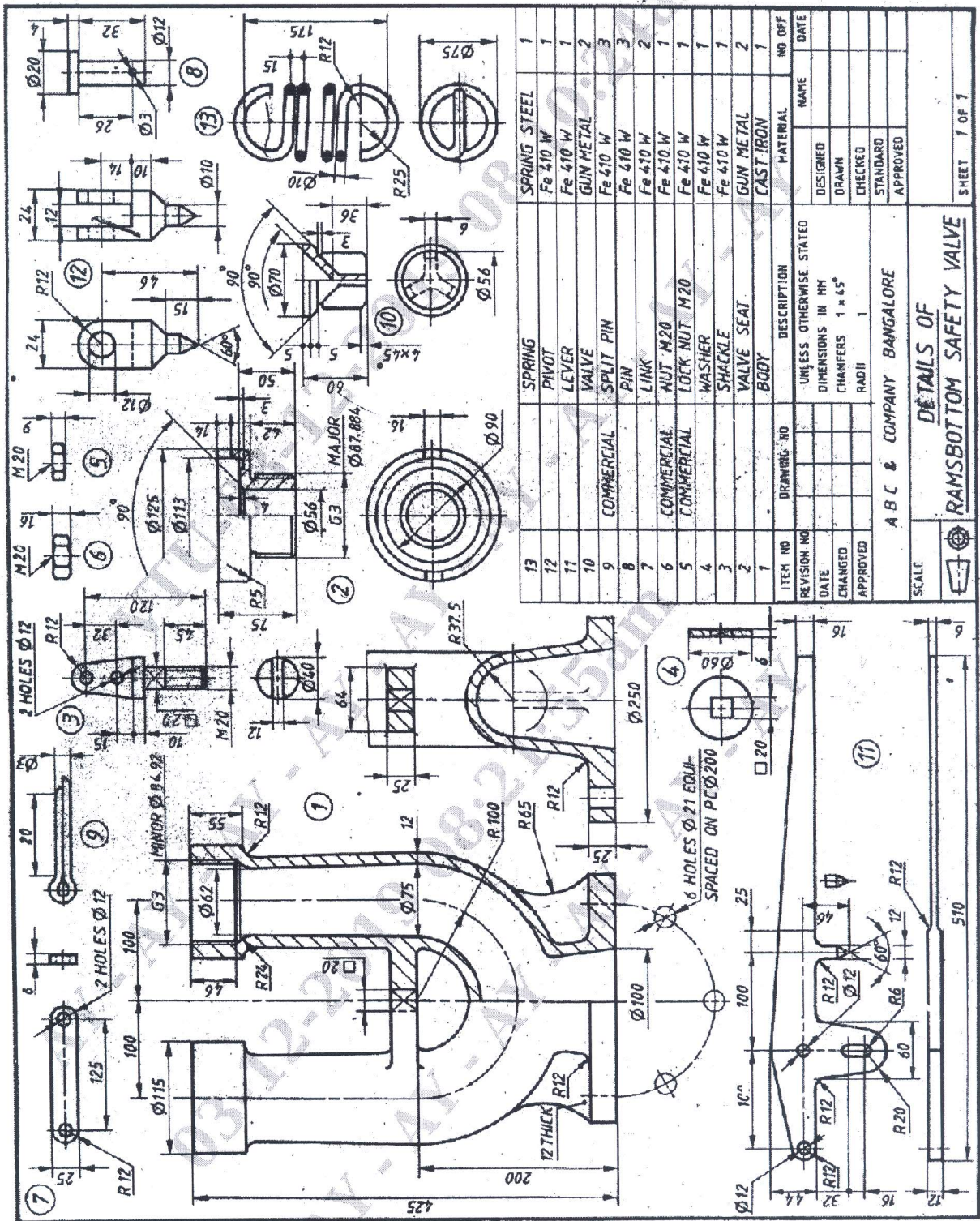


Figure 2 : Rams Bottom Safety Valve