U.S.N.										

B. M. S. College of Engineering, Bengaluru - 560019

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Program: B.E. **Semester: III**
Branch: Mechanical Engineering **Duration: 3 hrs.**
Course Code: 19ME3DCCMD **Max Marks: 100**
Course: Computer Aided Machine Drawing

Instructions: 1. Answer all questions.
2. Use first angle projection only.
3. Missing data, if any, may be suitably assumed
4. All dimensions are in mm.
5. Important dimensions are to be shown in the assembly.
6. A suitable scale, if necessary, may be taken.

UNIT - I

1. A cone, base 60 mm diameter and axis 70 mm long is resting on HP on its base. It is cut by a section plane perpendicular to VP and inclined at 75^{o} to HP so as to cut the axis of the cone at a point 20 mm above the base. Draw its front view, sectional top view and the true shape of section. **20**

OR

2 A pentagonal prism with 35 mm side of base and axis length 60 mm rests on one of its rectangular faces on HP. The axis of the prism is parallel to both HP and VP. The prism is cut by an auxiliary inclined plane making an angle of 30˚ with HP so as to bisect the axis of the prism. Construct the apparent and true shape of section. **20**

UNIT - II

3. Fig. 3 shows the detail of the Machine vice. Assemble parts and draw the following views of the assembly to scale 1:1 with the jaws spread 50 mm apart. **80**

   i. Front view in section.

   ii. Top view.

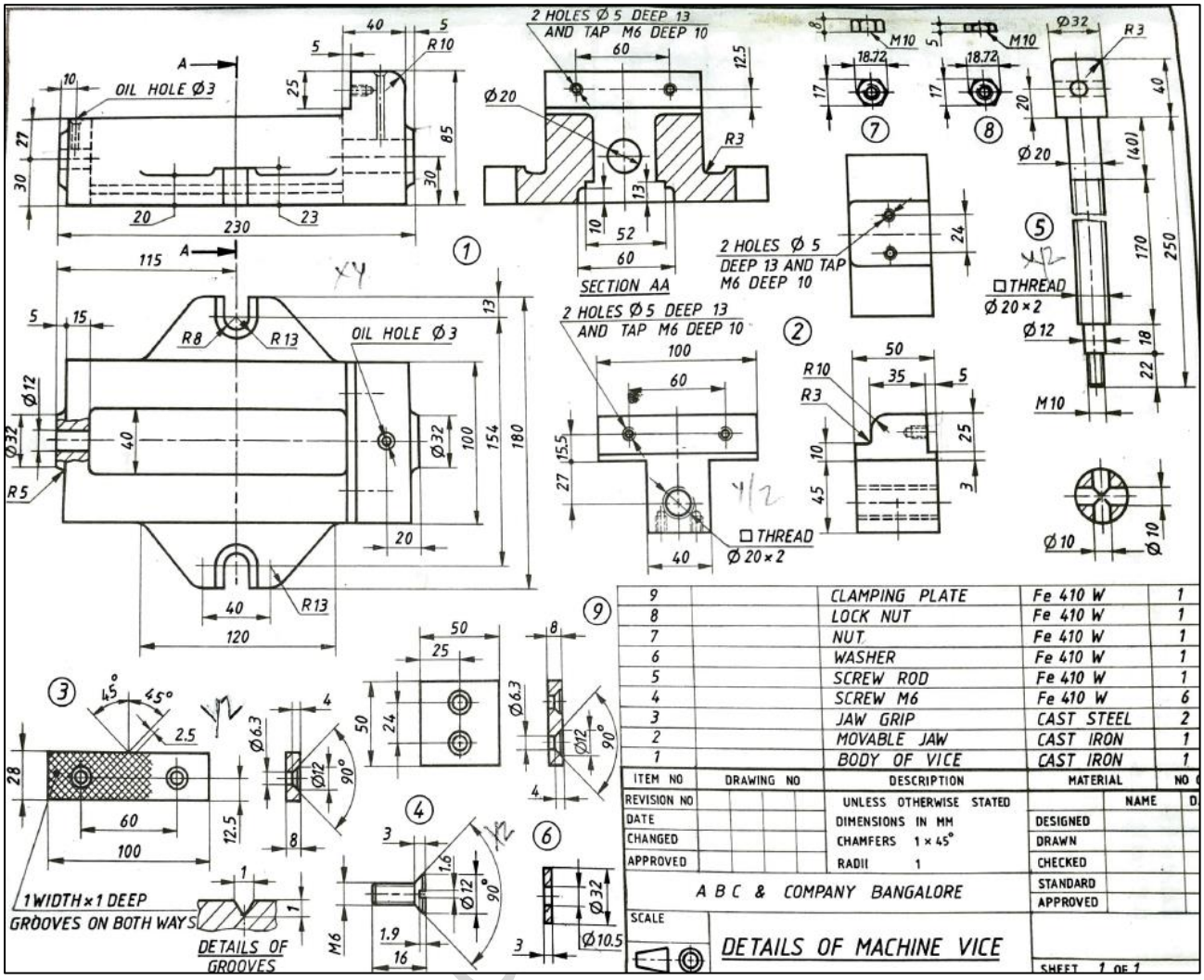

Figure 3: Details of Machine vice

OR

4. The details of RAMS BOTTOM SAFETY VALVE are shown in Fig.4. Assemble all the parts correctly and construct the following views to 1:2 scale. **80**

(i) Front view showing right half in section.

(ii) Top view

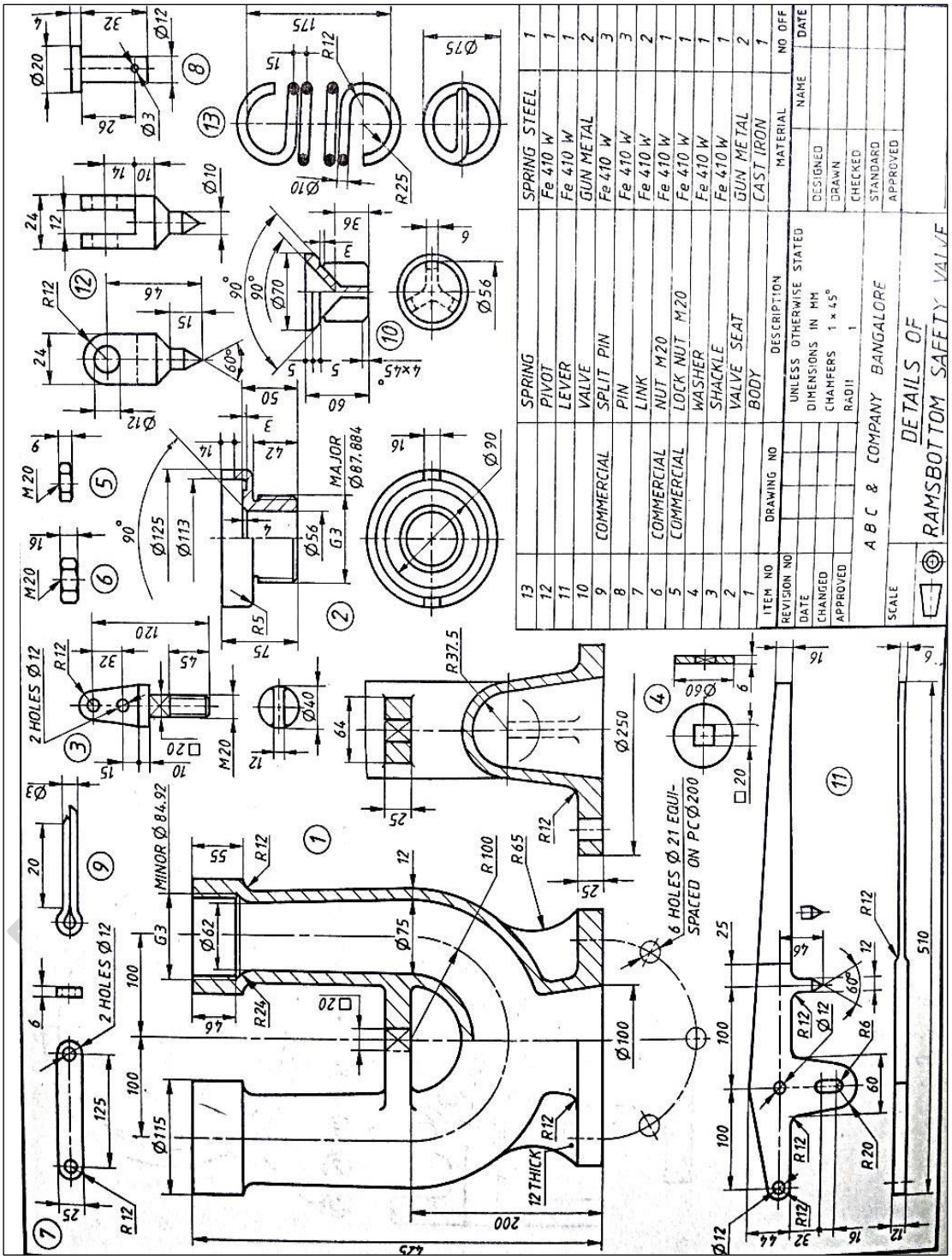

Figure 4: Details of Ramsbottom Safety Valve.