

30/05/2012 – 11.30am to 2.30pm

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10ME36A/46A

Third/Fourth Semester B.E. Degree Examination, June 2012

(ME/IP/IM/MA/AE)

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 assembled view should be in 3-D and other views in 2-D

PART – A

- 1) An equilateral triangular prism of 40mm side of base and height 80mm is cut by a section plane in such a way that the true shape of section is a trapezium of parallel sides of 40mm and 10mm. Draw the sectional view and the true shape of section. Find the inclination of the section plane and the distance between the two parallel sides of the trapezium.
[20 Marks]
- 2) Draw two views of a hexagonal headed bolt and nut with washer (assembly) for a 25mm diameter bolt. Take the length of the bolt equal to 125mm.
[20 Marks]

PART – B

- 3) Draw the sectional front view and top view of a double-riveted butt joint with single cover strap to connect two plates of 12mm thickness. Use snap head rivets with chain riveting arrangement and show all the calculations on the answer sheet.
[20 Marks]
- 4) Draw the side view and sectional front view of a Universal coupling by taking the shaft diameter as 20mm.
[20 Marks]

PART – C

5) Figure 2. Shows the details of a Ramsbottom Safety Valve. Assemble the parts and draw i) Front View ii) Side view iii) Assembled 3D view.

[60 marks]

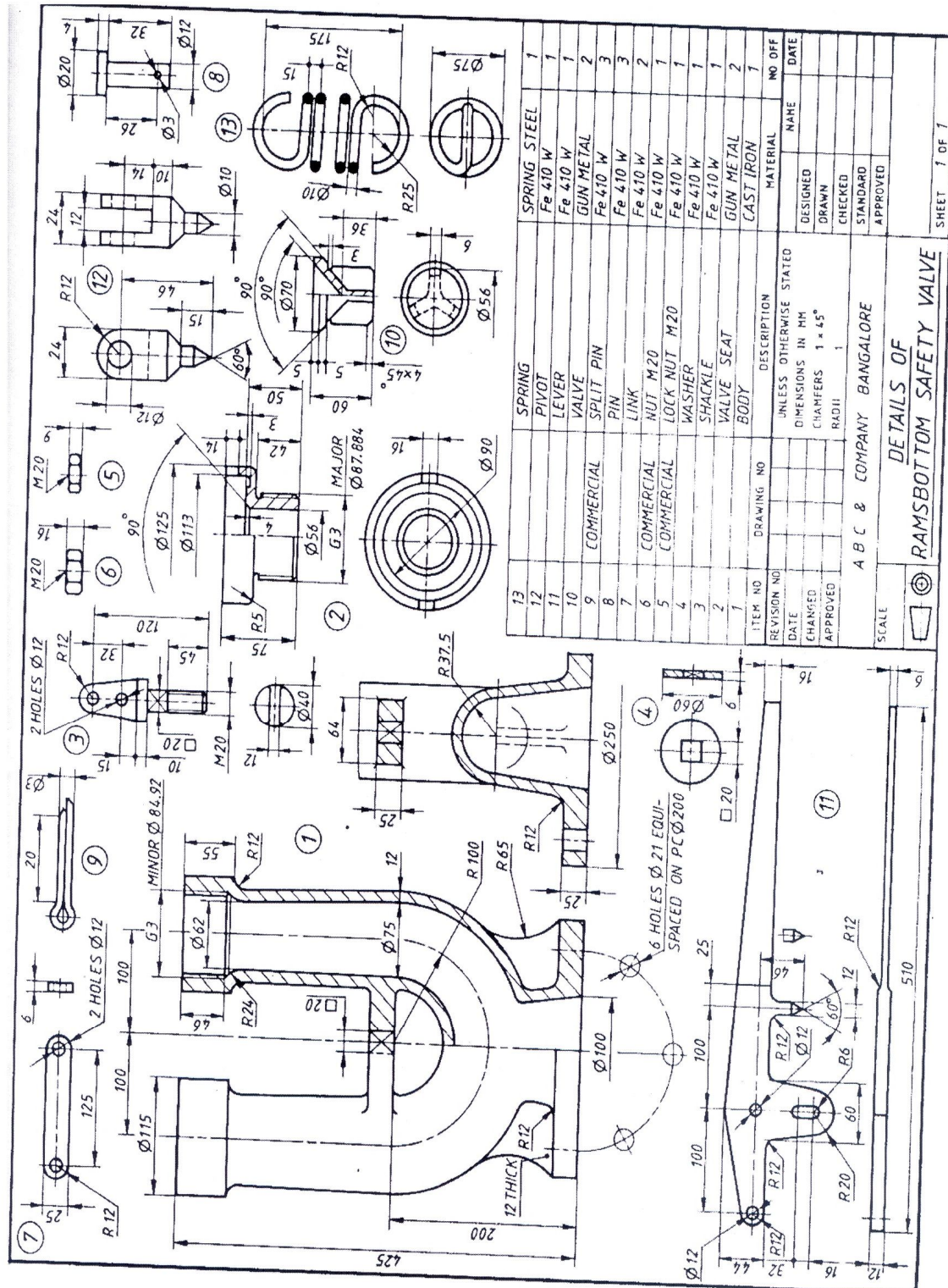


FIGURE 1

Details of a Ramsbottom Safety Valve

fig. 22 14

[60 marks]



Figure2