

**B.E., DEGREE EXAMINATIONS: JUNE 2013**

Third Semester

**MECHANICAL ENGINEERING**

MEC104: Machine Drawing

**Time: Three Hours**

**Maximum Marks: 100**

**Answer ALL Questions:-**

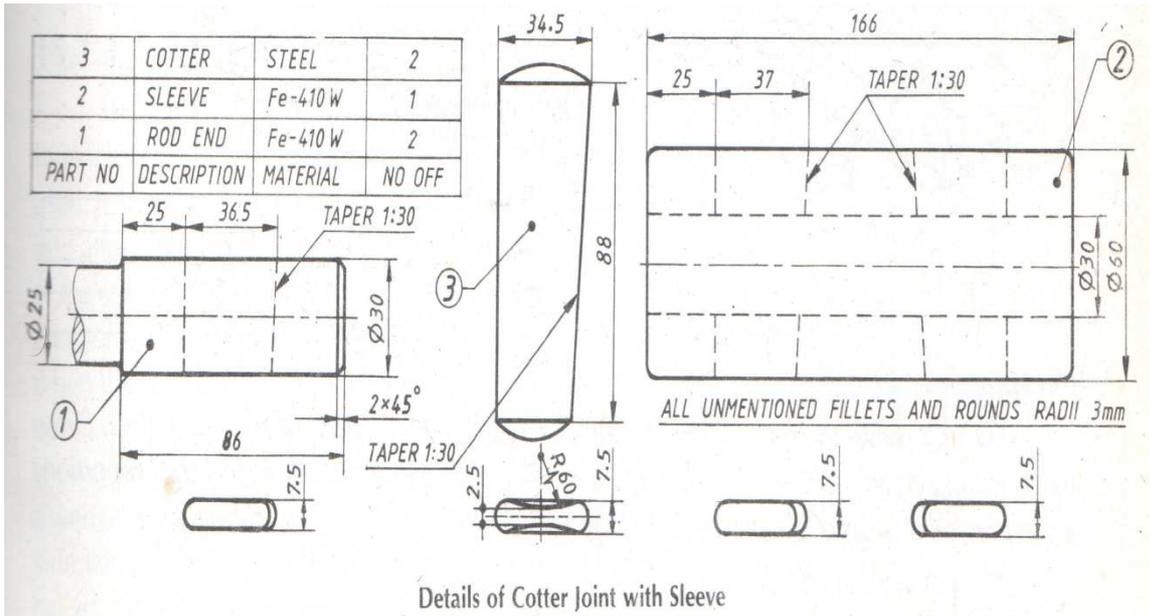
**PART A (10x2=20 Marks)**

1. Write the Engineering drawing classification according to the area of applications?
2. What is a reduced scale and enlarged scale?
3. List the various methods of projections in Machine drawing.
4. What are the different types of sectional views?
5. Differentiate between Orthographic and pictorial projection.
6. Sketch the symbols for the following characteristics used for form tolerances.
  - a) Straightness
  - b) Circularity
  - c) Cylindricity
  - d) Flatness
7. Define the terms Allowance and Tolerance.
8. Why rivets, bolts nuts and key are not sectioned?
9. Give the dimensioning of welds.
10. Why the Hole bass system is preferred rather than shaft bass system?

**PART B (1x20=20 Marks)**

11. a) Draw the following assembled views of a Cotter Joint with Sleeve, details of which are given in fig (1) to 1:1 scale. Front view in section. (20)

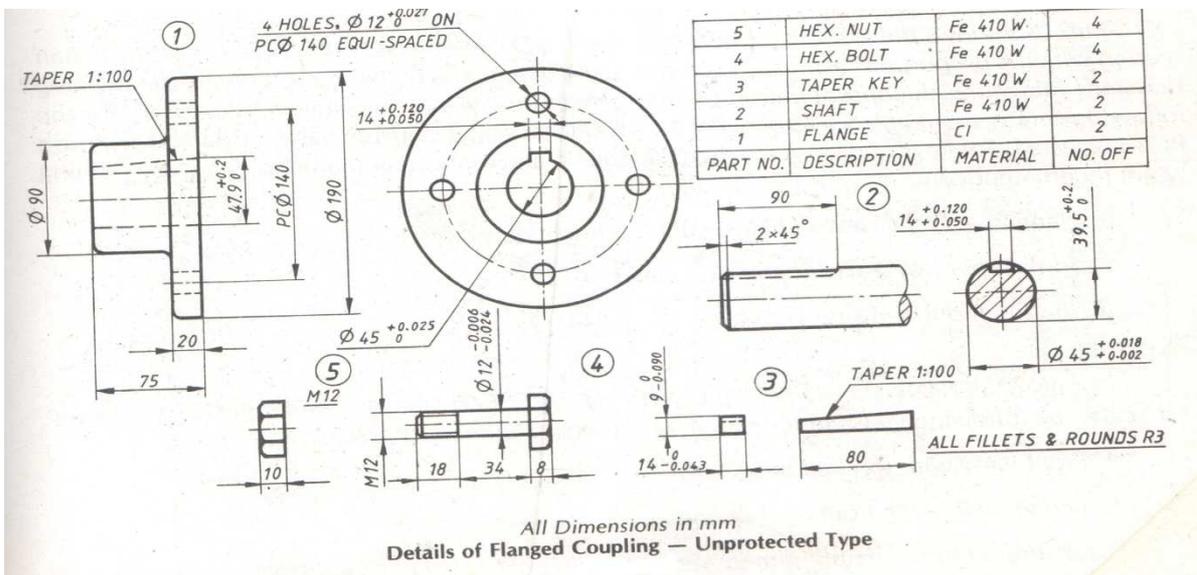
Fig (1)



(OR)

b) Details of a Flanged Coupling - Unprotected type are shown in fig (2) .Draw to 1:1 scale, the following views of the coupling showing all the parts assembled with one of the shafts being projected by a distance of 5mm into the bore of the other flange. Front view with top half in section. (20)

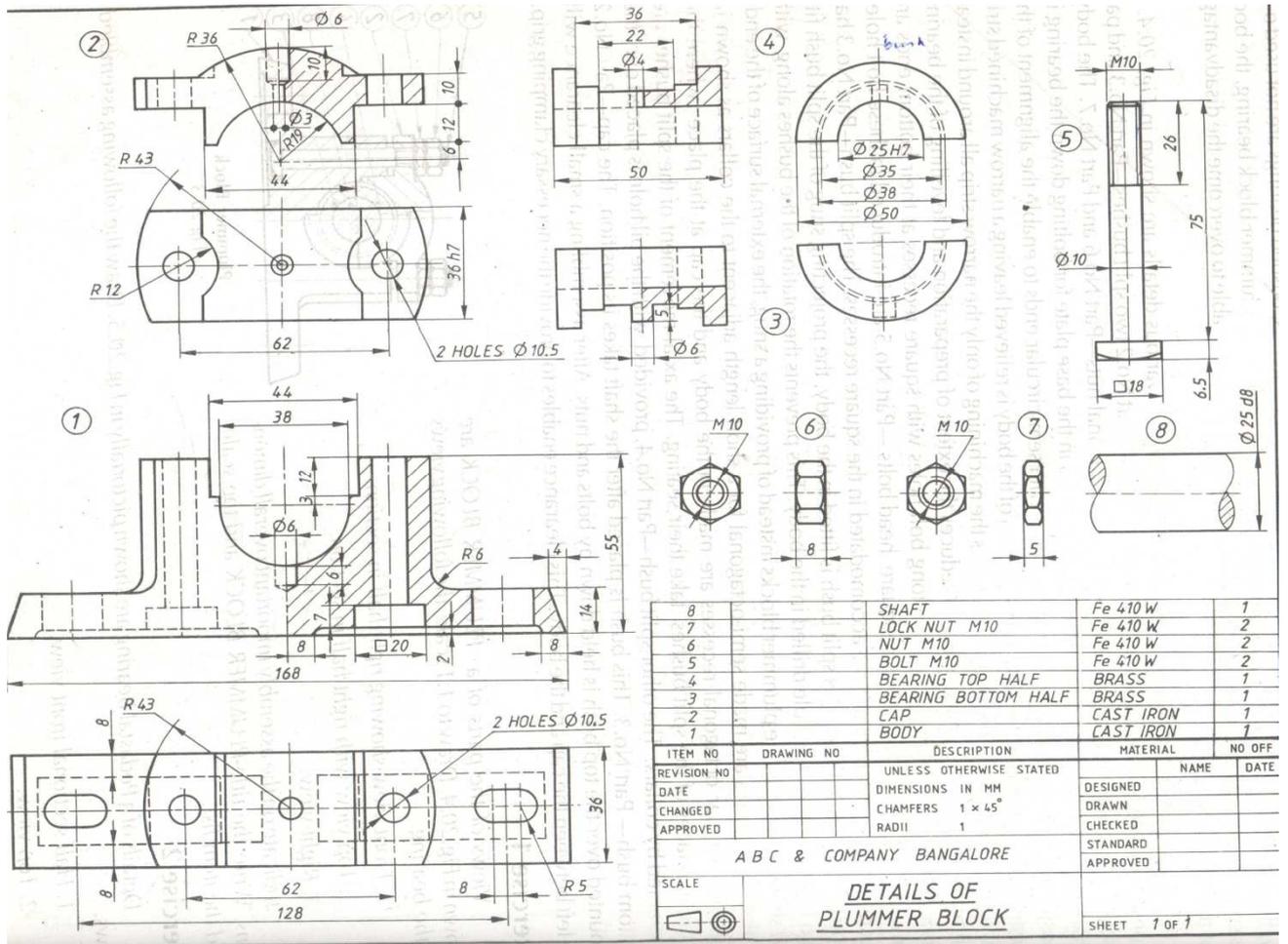
Fig (2)



PART C (1 x 60= 60 Marks)

12. a) View of the parts of a Plummer Block are shown in fig (3) . Draw to 1:1 scale, of the bearing -

Fig (3)



(i) Front view showing right half in section. (35)

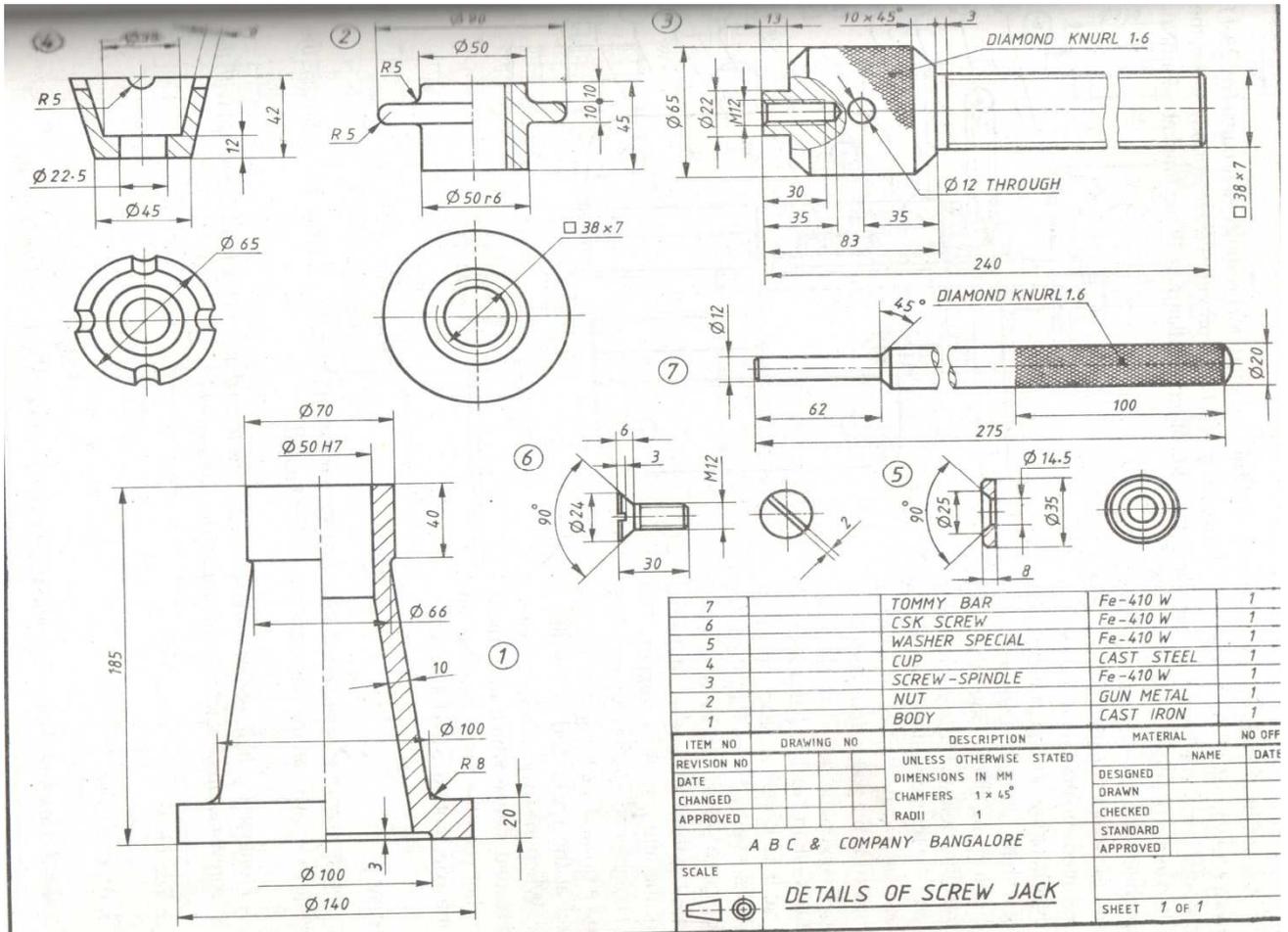
(ii) Top view (20)

(iii) Title Block (5)

(OR)

b) The details of a Screw Jack are shown in fig (4) . Assemble the parts of the jack and draw the following views of the assembly when the top face of the load bearing cup is raised to a height of 350 mm above the bearing surface of the body.

Fig (4)



(i) Front view in half section.

(35)

(ii) Top view.

(20)

(iii) Title Block

(5)

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