

Unit - III

5. a) What do you mean by factor of safety? Write an expression for factor of safety for ductile and brittle materials. 7
- b) Write different theories of failure and explain any two of them. 7

OR

6. a) What are the advantage of CAD? Explain five utility commands in CAD. 7
- b) What are the important factors which should be considered while designing a product? Explain with suitable example. 7

Unit - IV

7. Design riveted joints for the longitudinal and circumferential seams of a boiler having 1.25 m diameter to withstand maximum pressure of 2.5 N/mm^2 . 14

OR

8. Two mild steel rods transmit an axial tensile load of 150KN and are connected by a knuckle joint. Design and draw the joint, completely. 14

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AU/IP/IEM/ME/PR - 305**B.E. III Semester**

Examination, June 2015

Machine Drawing And Design*Time : Four Hours**Maximum Marks : 70*

- Note:** 1. Attempt all questions.
2. Assume suitable data, if necessary, clearly mentioned it.
3. Neat sketches is to be drawn, whenever required.
4. Use of Machine Design Data / Hand Book is permitted,

Unit - I

1. a) Draw any five conventional representations of machine components. 7
- b) Draw a sectional front view and top view of the double riveted lap joint with chain riveting, to join plates of thickness 10 mm. 7

OR

2. Draw the full sectional front view and right side view (right half in section) of the Bearing block, shown in figure-1. 14

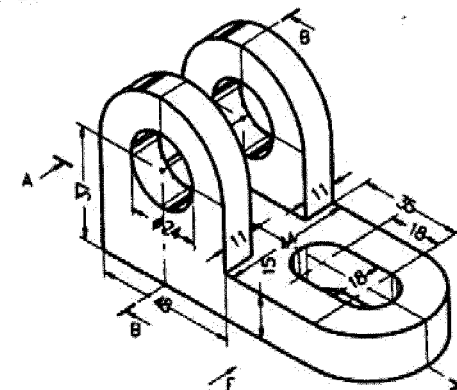


Figure - 1

Unit - II

3. Part drawing of pedestal bearing is given in figure-2 assembled them and draw;
- Front view, left half in section 14
 - Top view, left half in section 10
 - Bill of materials 4

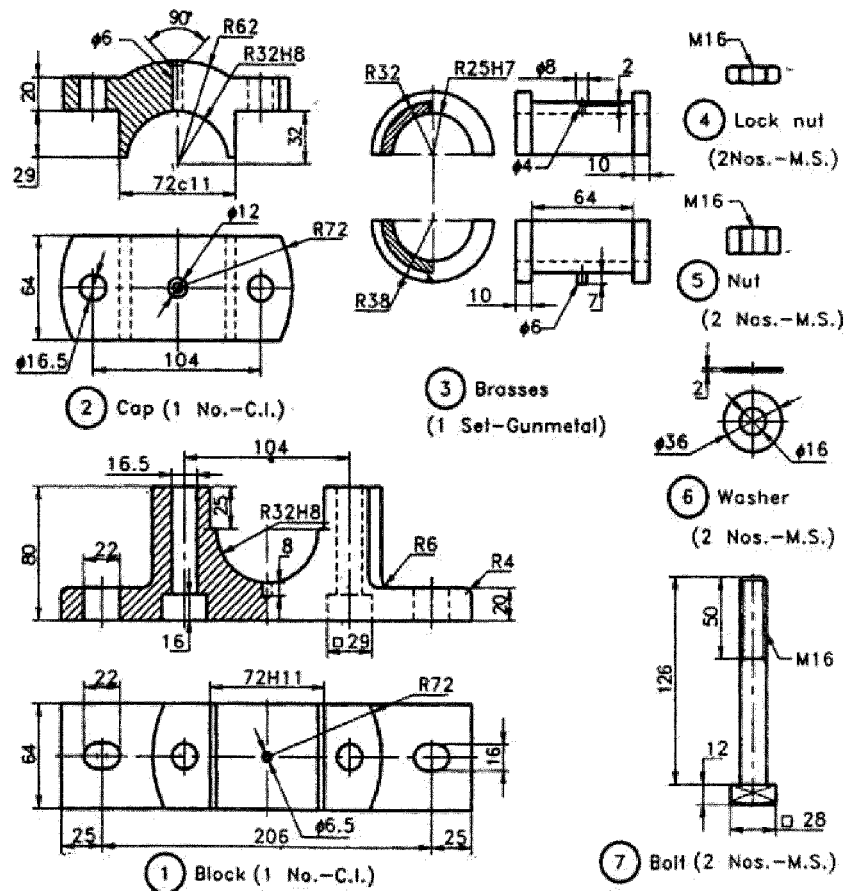


Figure - 2

OR

4. The various parts of cross-head are shown in figure-3. Assembled them and Draw;
- Sectional view, upper half in section 14
 - Top view 10
 - Bill of materials 4

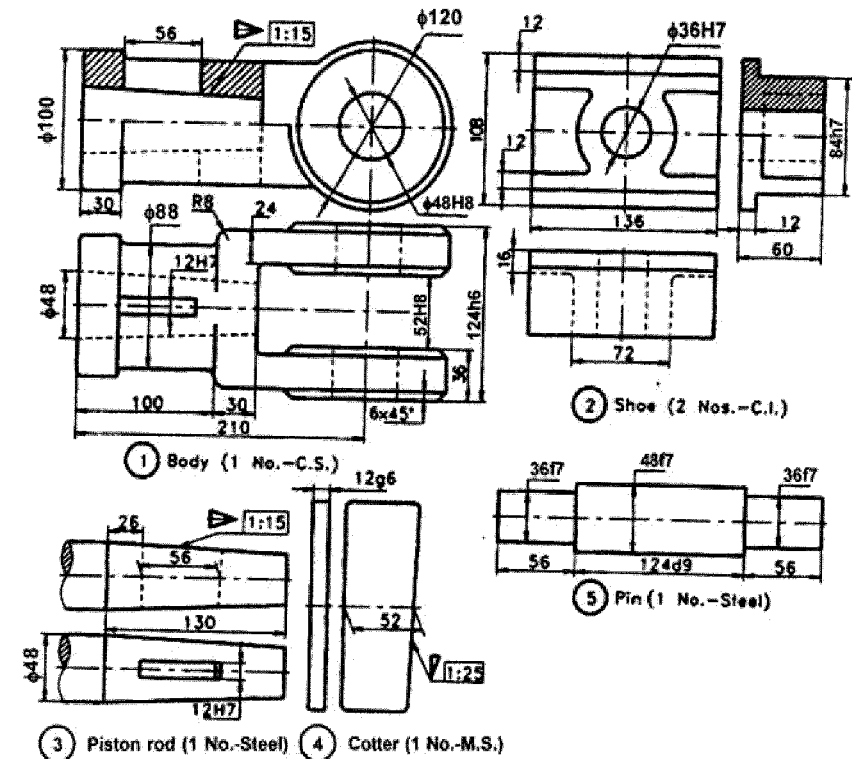


Figure - 3