



- f) Draw a free hand sketch of hexagonal threaded bolt.
- g) Enlist the practical applications of pin type flexible coupling.
- h) What is a half section?
- i) What is the function of piston in an IC engine?
- j) What is a cotter and when is it used? What is the purpose of using a gib along with a cotter in a cotter joint?

### **SECTION-B**

- 2. Explain blow off cock with the help of a diagram.
- 3. Discuss the following commands of AutoCAD :
  - a) Array
  - b) Offset
  - c) Extrude
  - d) Trim
  - e) Mirror
- 4. Differentiate between machine drawing and production drawing.
- 5. Draw profile of Knuckle threads by taking pitch of 20 mm. Clearly show the calculations and show dimensions on drawing.
- 6. Draw the sectional front view and top view of a double riveted zig-zag lap joint to join plates of thickness 10 mm.

### **SECTION-C**

- 7. Sketch a Knuckle joint showing sectional front view and top view for connecting two rods of 40 mm diameter.

8. Fig. 1 shows the two views of a protected type flanged coupling. Draw the following views on full scale :

- Front view lower half in section
- Side view

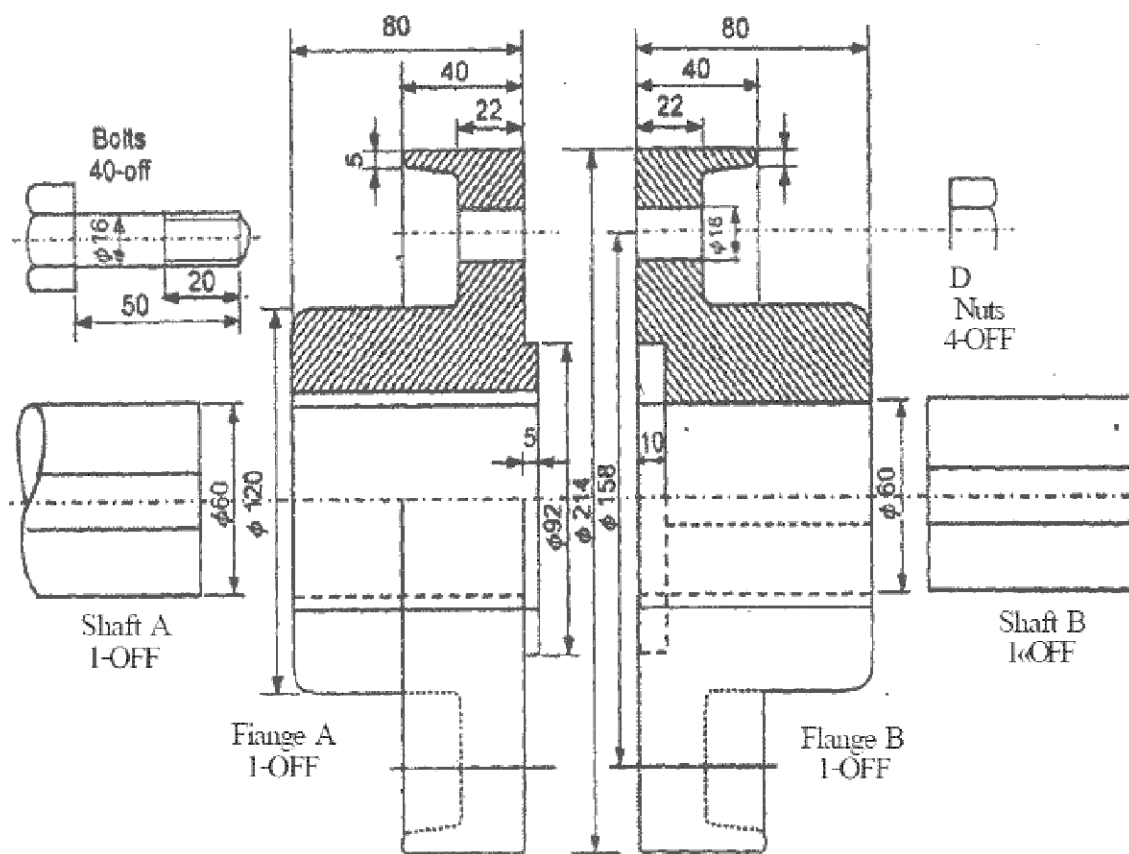


FIG.1

9. Fig. 2 shows the details of a screw-jack. Draw the following views of the assembly to some suitable scale :

- Front view-right half in section, and
- Top views

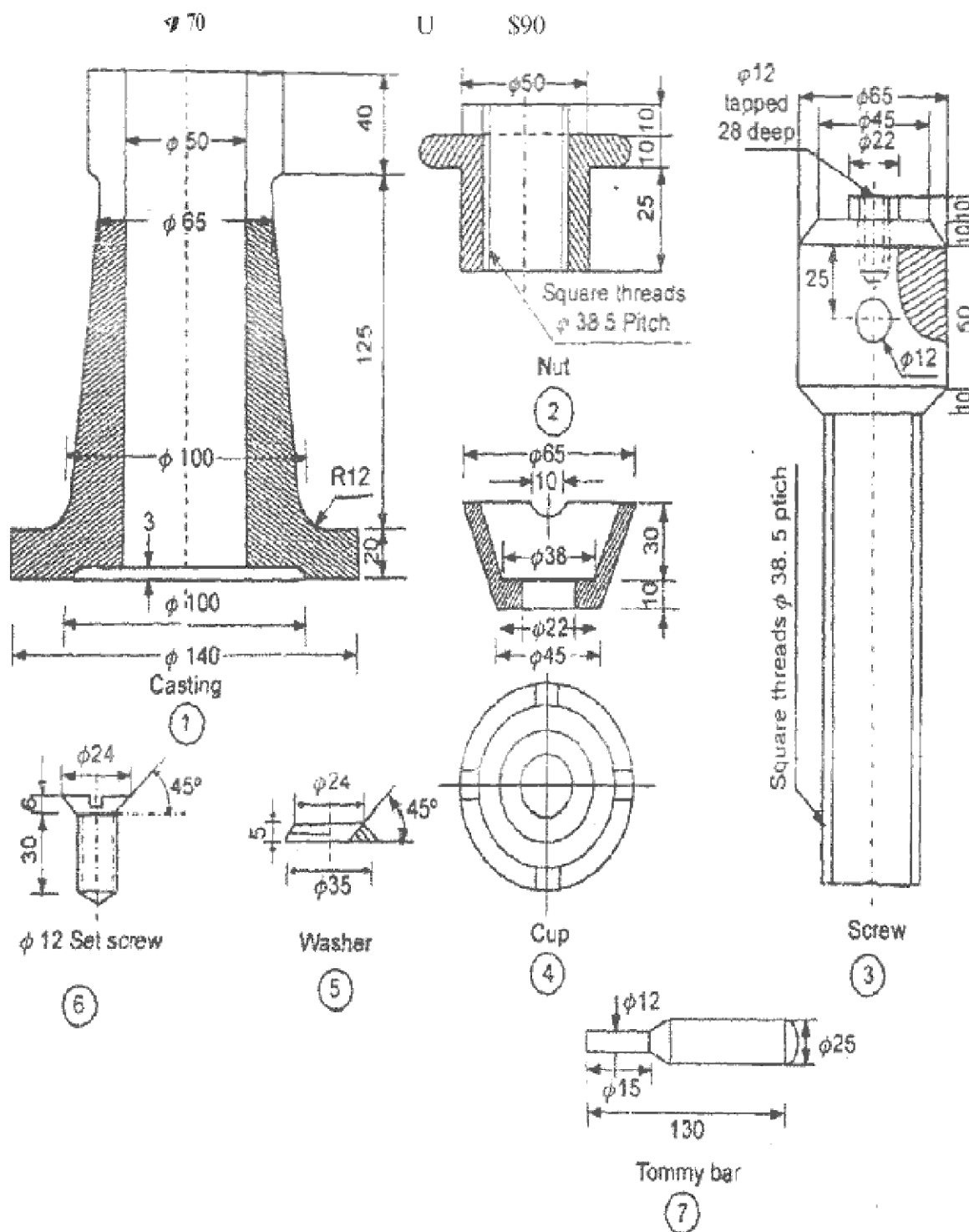


FIG.2

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