Roll No. | | | | | | | | | | | | Total No. of Pages : 05

Total No. of Questions : 09

B.Tech. (AE)/(ANE)/(IE)(AII)/(ME) (Sem.–3)

MACHINE DRAWING

Subject Code : ME-207

Paper ID : [A0804]

Time : 4 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

1. **Write briefly :**

(a) What is caulking and fullering ?

(b) Explain working mechanism of safety valve in boilers.

(c) What are advantages of multi start threads ?

(d) What is practical application of Oldham coupling ?

(e) What is union joint ?

(f) Draw symbols for (i) convex double-V butt joint (ii) Filler weld.

(g) How external threads are represented in sectioning ?

(h) What do you understand by standard tolerances ?

(i) Draw following types of lines : (i) cutting plane line (ii) centre line.

(j) What is IS : 296 code ?

SECTION-B

2. Explain different methods of dimensioning with the help of figures.

3. Draw free hand sketch of unprotected type flange coupling.

4. Draw free hand sketch of a double riveted zig-zag butt joint with one cover strap. Represent pitch of the rivets in terms of diameter of the rivets and diameter if rivets in terms of thickness of the plate.

5. Draw profile of metric threads by taking pitch of 20 mm. Represent calculations and show dimensions on the drawing.

6. What are the advantages of computer aided drawing over the manual drawing?

SECTION-C

7. Assemble the part of **Screw jack** given in Fig. 1 and draw the following views :

   (a) Elevation (Right Half in Section)

   (b) Top view

8. Assemble the parts of a **Stop valve** given in Fig. 2 and draw the following views :

   (a) Elevation right half in section

   (b) Plan

9. Assemble the part of a **Spring loaded safety valve** given in Fig. 3 and draw the full section front view.

Figures on next page

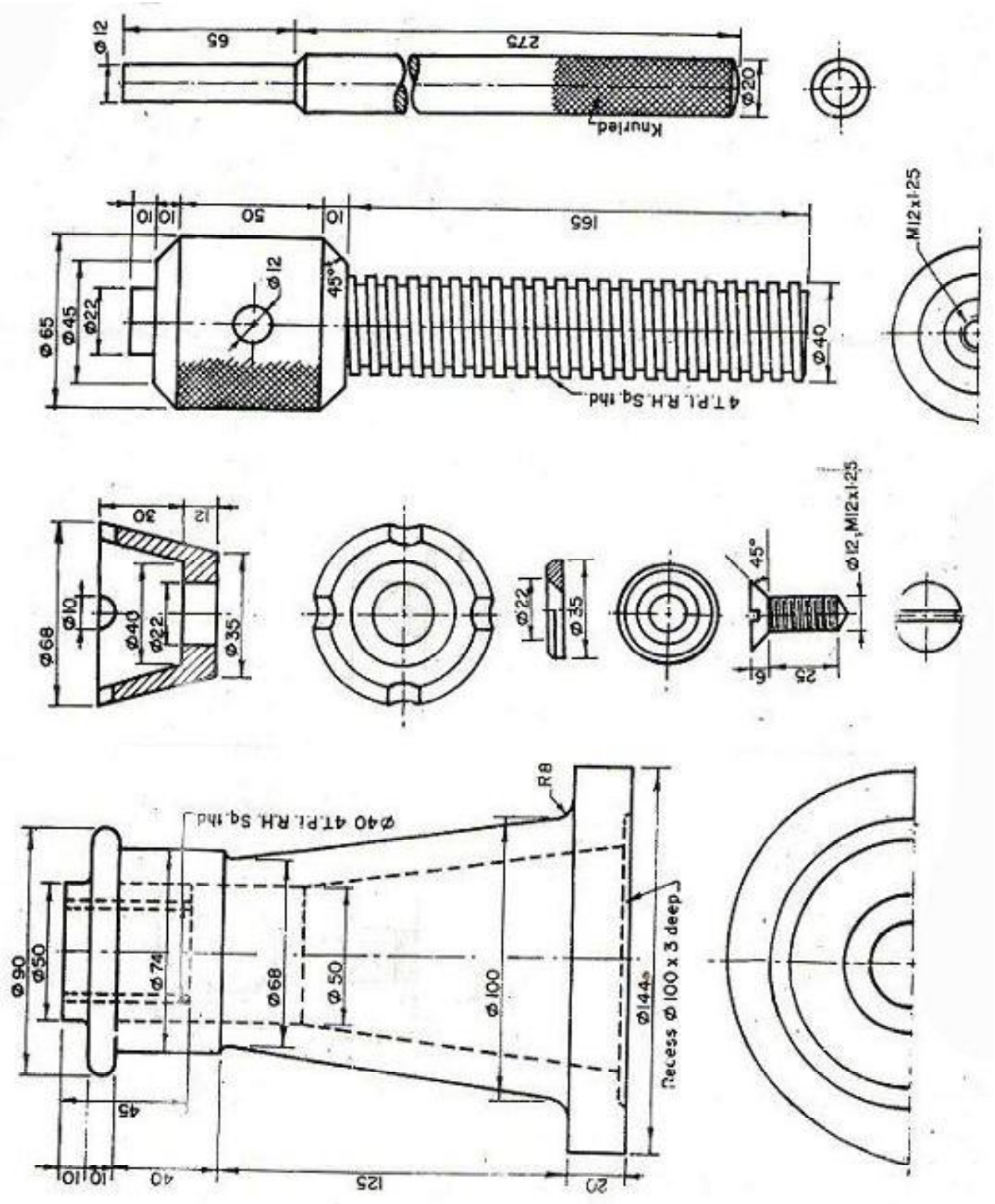

Fig. 1

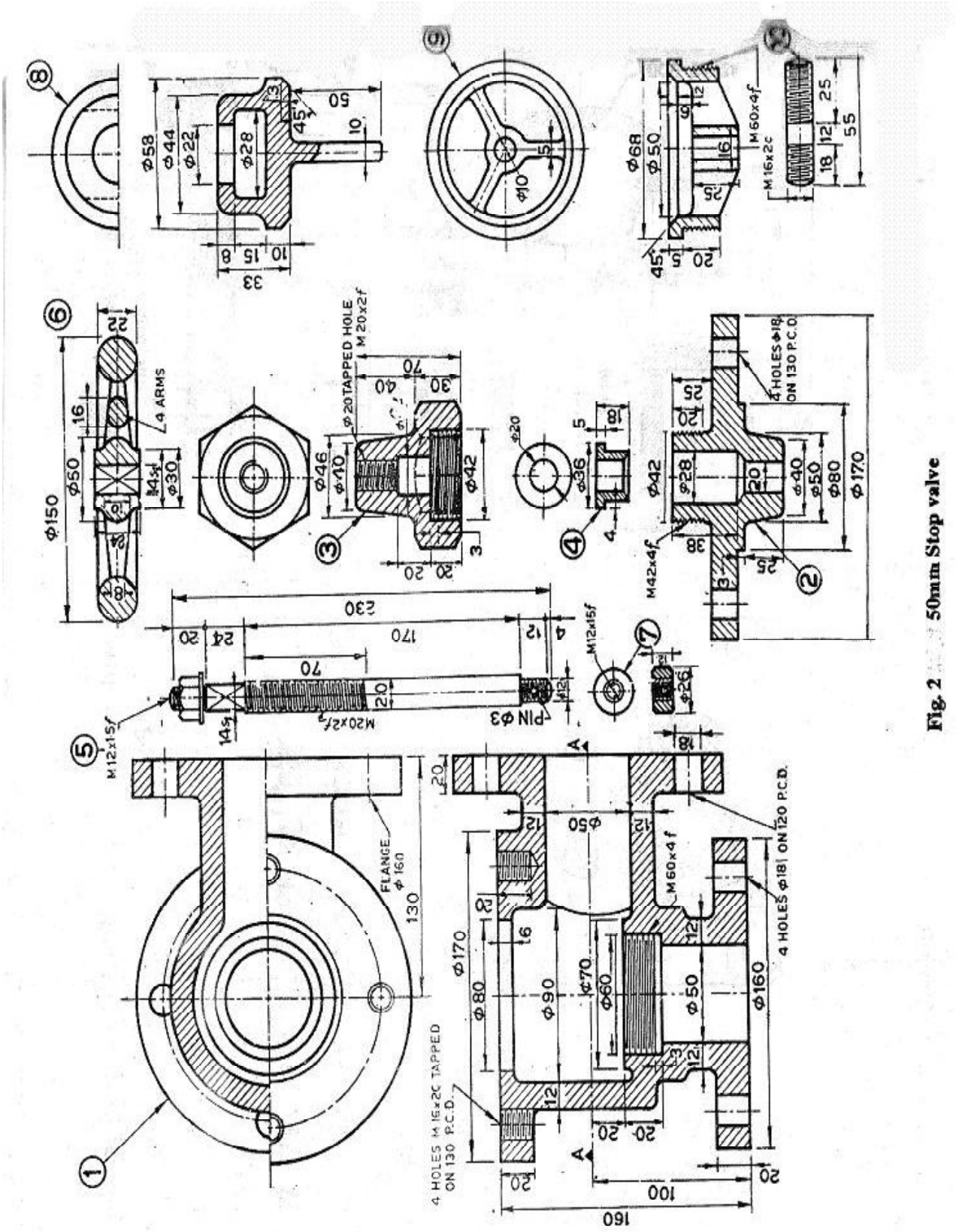

Fig. 2. 50 mm Stop Valve

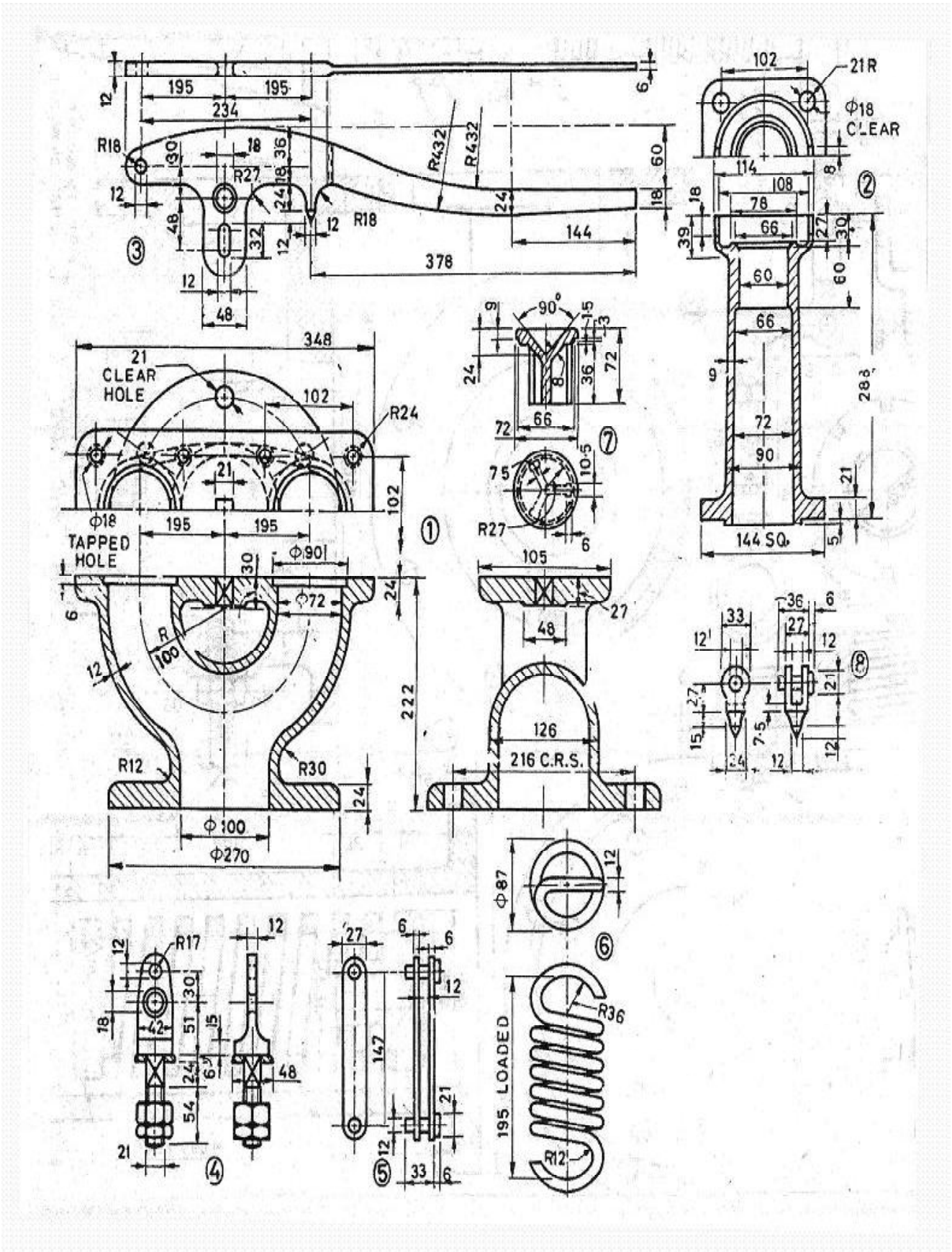

Fig. 3