Register Number: ……

B.E. DEGREE EXAMINATIONS: NOV/DEC 2010

Third Semester

MECHANICAL ENGINEERING

MEC104: Machine Drawing

Time: Four Hours **Maximum Marks: 100**

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. What are the applications of involutes in engineering field?
2. Draw the conventional representation of internal and external threads.
3. What is the purpose of sectioning an object?
4. Define the following terms used in screw threads. (i) Pitch (ii) Lead
5. List any four types of welded joints.
6. Define the term ‘tolerance’.
7. How will you indicate the tolerance on angular dimensions?
8. When the fits are called as Clearance fit and Interference fit?
9. Write the methods of indication of surface finish on drawing.
10. Write the designation for the following:-
    (i) The circular hole of 35 mm diameter finished to H7 tolerance
    (ii) The circular shaft of 60 mm diameter finished to g6 tolerance

PART B (1 x 20 = 20)

11. a) Sketch the sectional front view of sleeve and cotter joint suitable to connect two rods of diameter 30 mm.

(OR)

b) Sketch the sectional front view of knuckle joint suitable to connect two rods of diameter 25 mm.

PART C (1 x 60 = 60)

12. a) Fig. 1 shows the details of Plummer Block. Assemble the parts and draw the half sectional front view of the Plummer Block.

(OR)

b) Assemble the parts of a Screw Jack shown in Fig. 2 and draw the half sectional front view of the Screw Jack.

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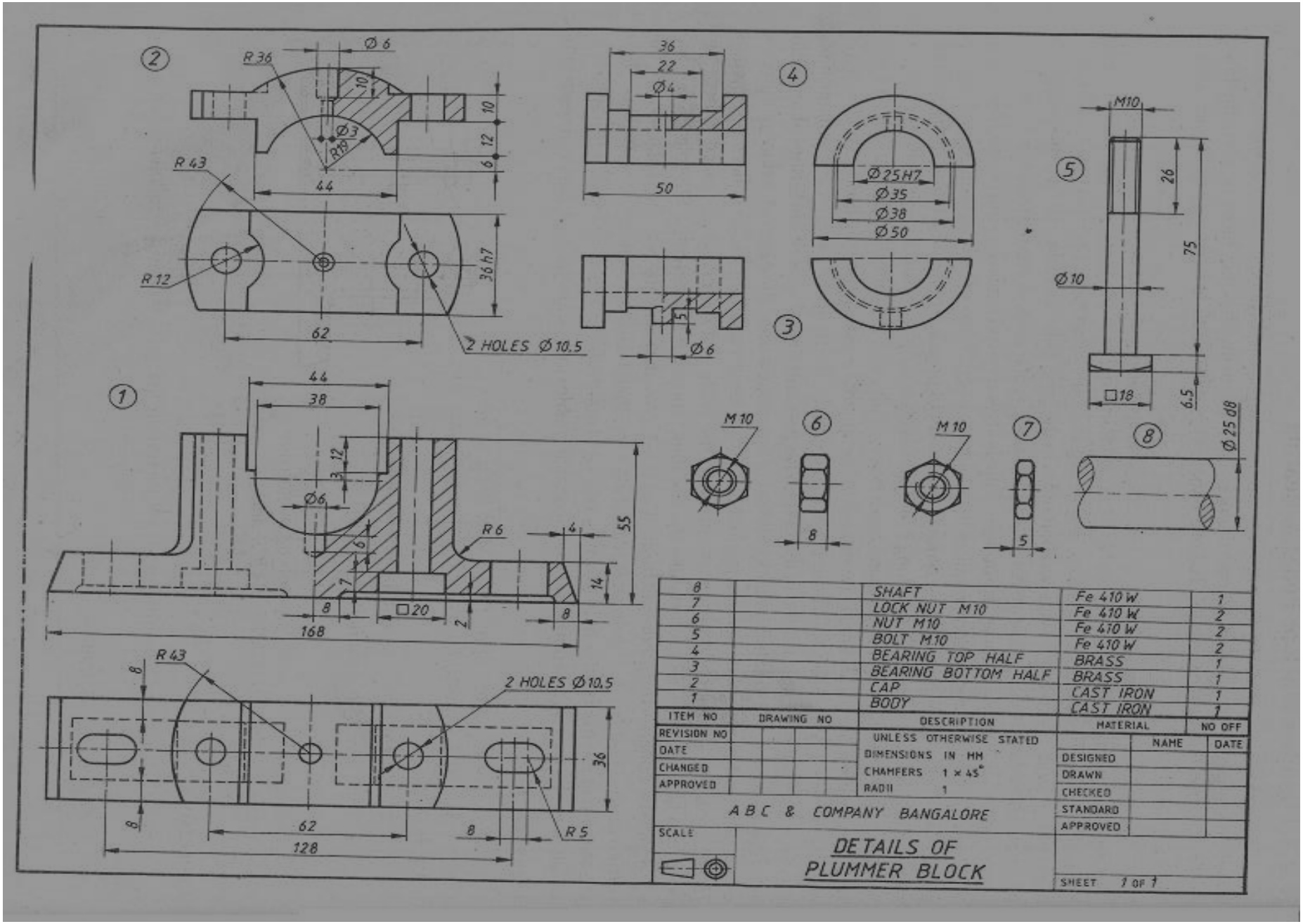

FIG. 1. Details of Plummer Block

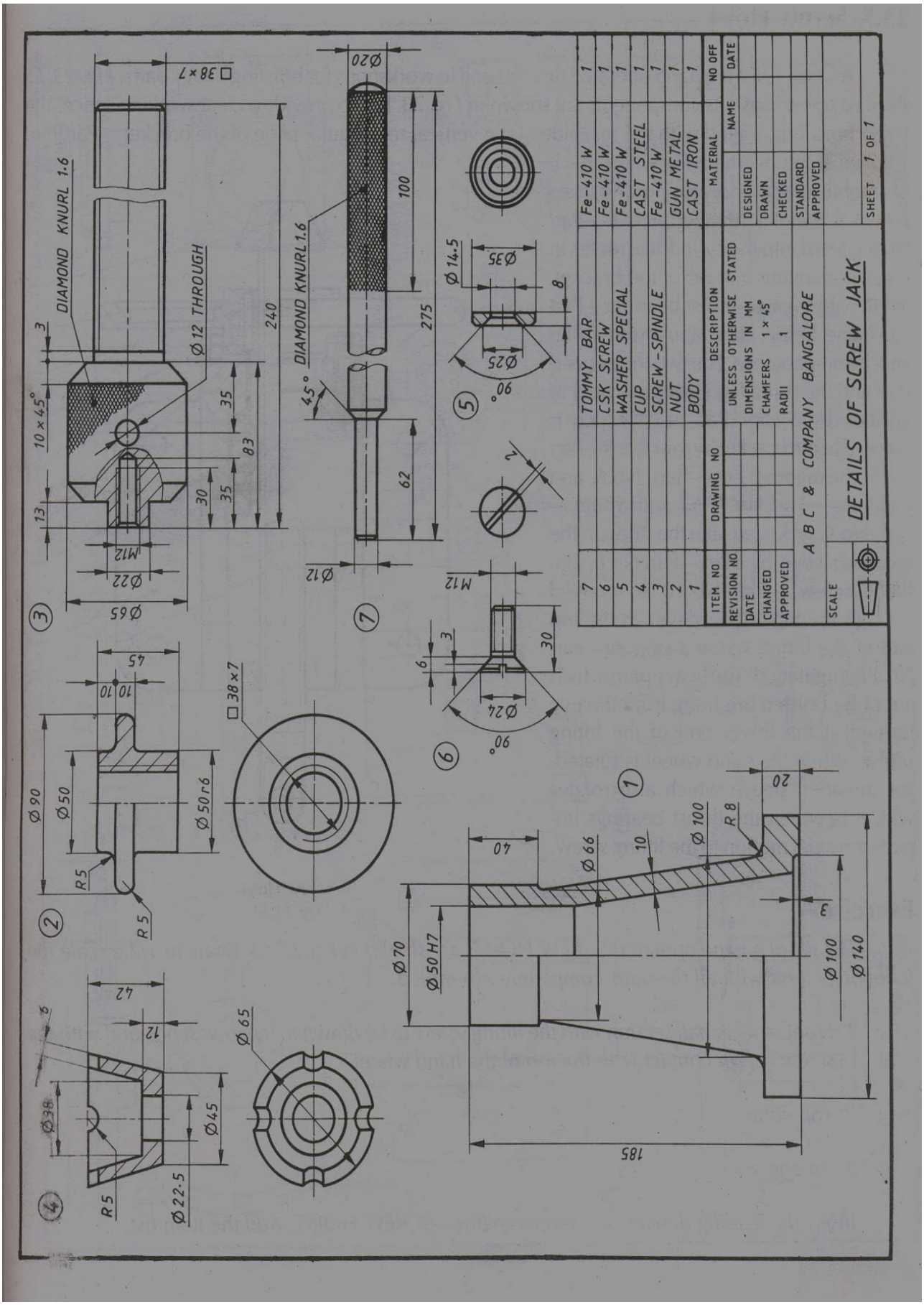

FIG. 2. Details of Screw Jack