Register Number: ……

B.E. DEGREE EXAMINATIONS: APRIL/MAY 2014

(Regulation 2009)

Third Semester

MECHANICAL ENGINEERING

MEC104: Machine Drawing

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

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. Write the application of involutes.
2. Draw the conventional representation of square ends.
3. With help of a sketch explain the dimensioning of symmetrical part.
4. What are the different types of surface textures?
5. List out the condition for symbolic representation of welded joints.
6. Explain the term clearance fit.
7. Sketch any four geometric characteristic symbols of form tolerance.
8. List out the types of geometric tolerance.
9. Define fit.
10. What is position tolerance.

PART B (1 x 20 = 20)

11. (a) Sketch the half sectional front view of a flanged coupling – unprotected type with the proportions expressed in terms of the diameter d of the shaft. Draw the Front view in section to 1:1 scale, assume d = 25 mm.

(OR)

(b) Sketch the sectional front view of a assembled Knuckle joint of 1:1 scale, assume d= 30 mm.

PART C (1 x 60 = 60)

12. (a) Part details of a Rams bottom safety valve are show in fig 1. Draw the front view showing one half in sections of the assembled to 1:2:5 scale.

(OR)

(b) The part details of DEAD-WEIGHT SAFETY VALVE are shown in fig 2 assemble all the parts correctly and draw front view showing one half in sections of the assembled DEAD-WEIGHT SAFETY VALVE to 1:2.5 scale.

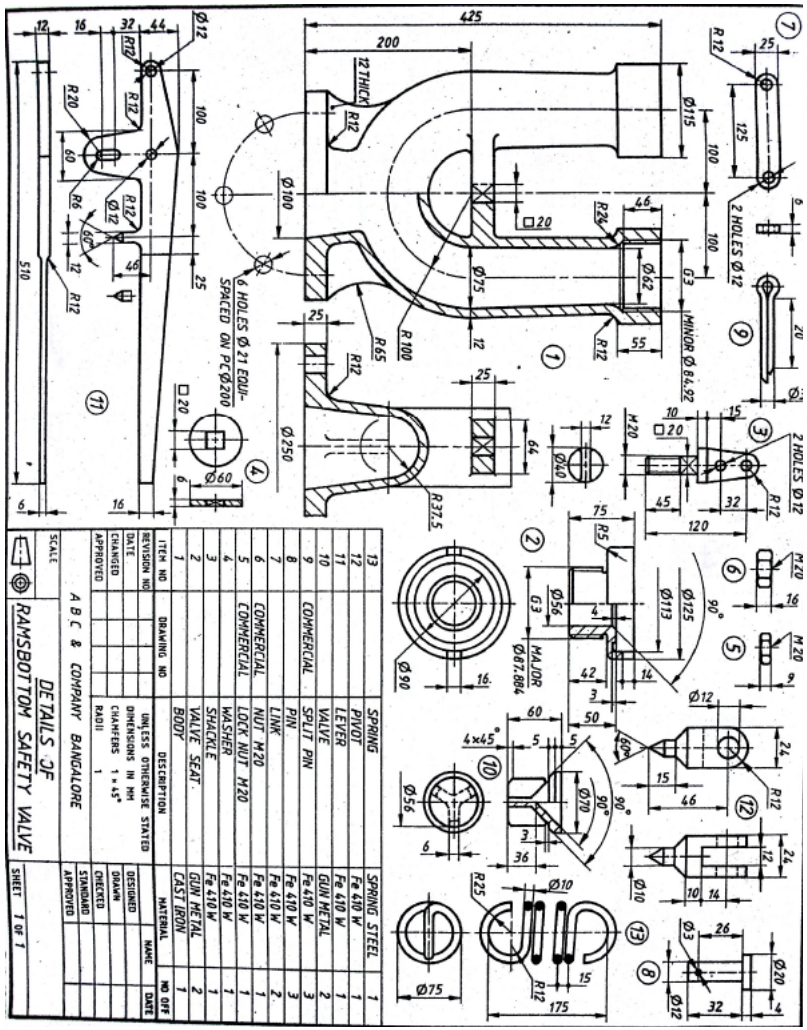

Fig 1 Rams Bottom Safety Valve

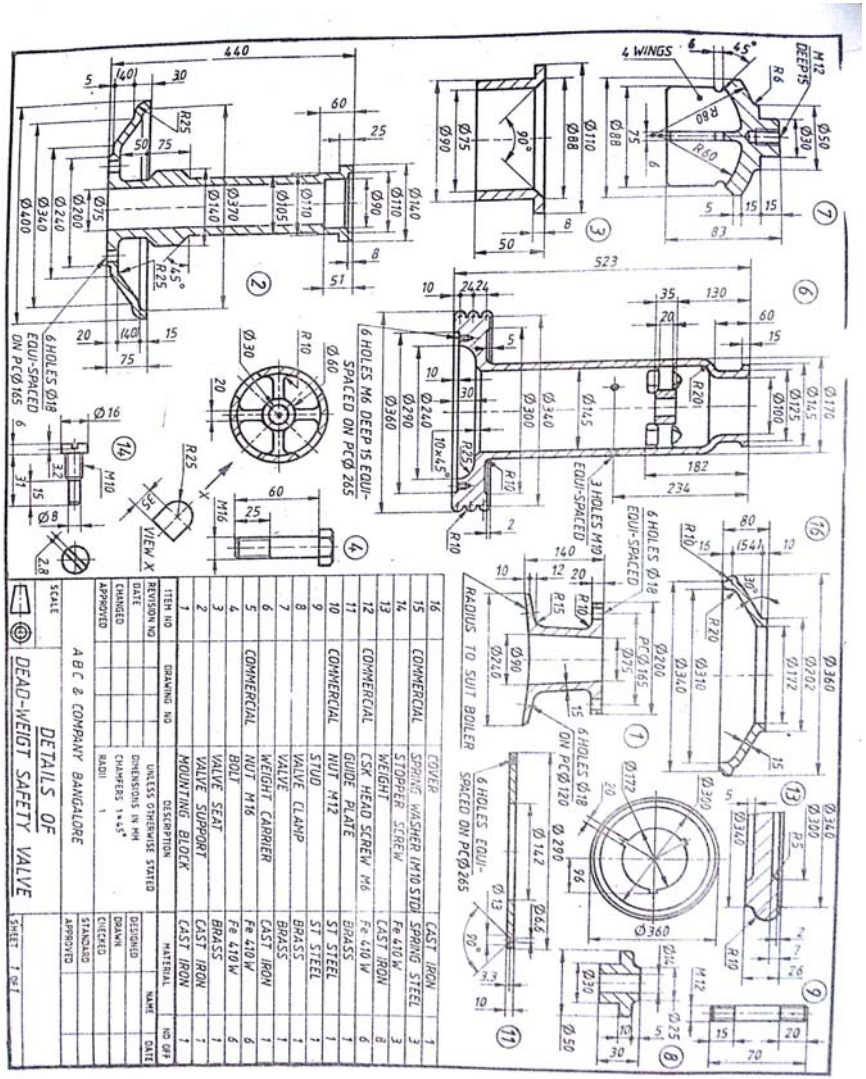

Fig 2 Dead-Weight Safety Valve