KUMARAGURU
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Register Number:..…….

B.E DEGREE EXAMINATIONS: DEC 2014

(Regulation 2013)

Third Semester

MECHANICAL ENGINEERING

U13MET304:Machine Drawing

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

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. Write down the A series drawing sheets sizes of ISO.

2. Explain the elements of dimensioning.

3. Sketch any example for partial views of symmetrical objects.

4. Define tolerance.

5. What is the use of clearance fit?

6. Sketch the roughness and waviness surface textures.

7. Explain the surface texture symbol with all the characteristics.

8. What are the types of hatching line?

9. Sketch the symbol of fillet welding.

10. Why the Hole basis system is preferred rather than shaft basis system?

PART B (1 x 20 = 20 Marks)

11. a) Fig 1 shows the different parts of a knuckle joint. Assemble all the parts and draw the following views.

i). Front view with top half section.

ii).Top view (20)

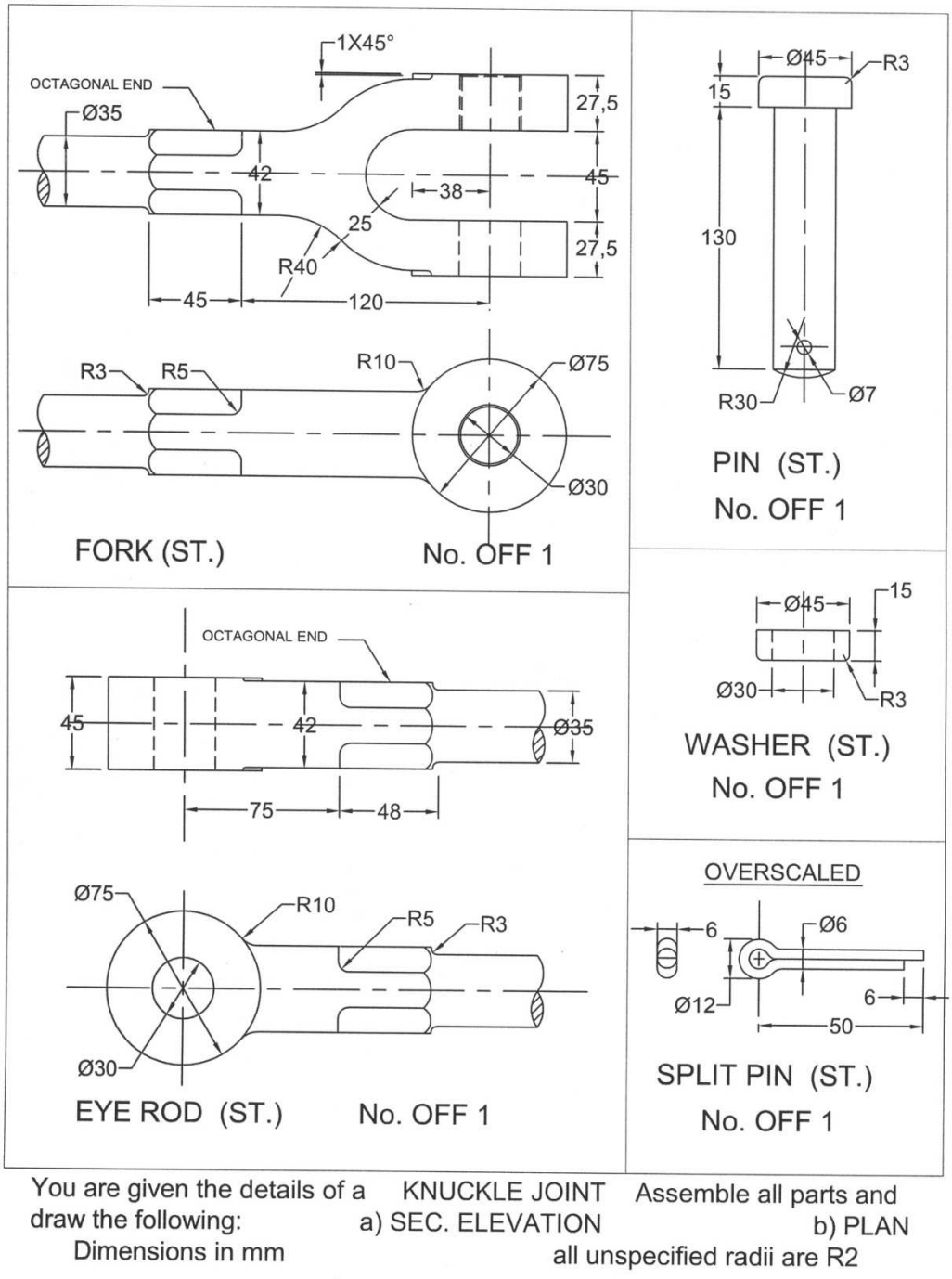
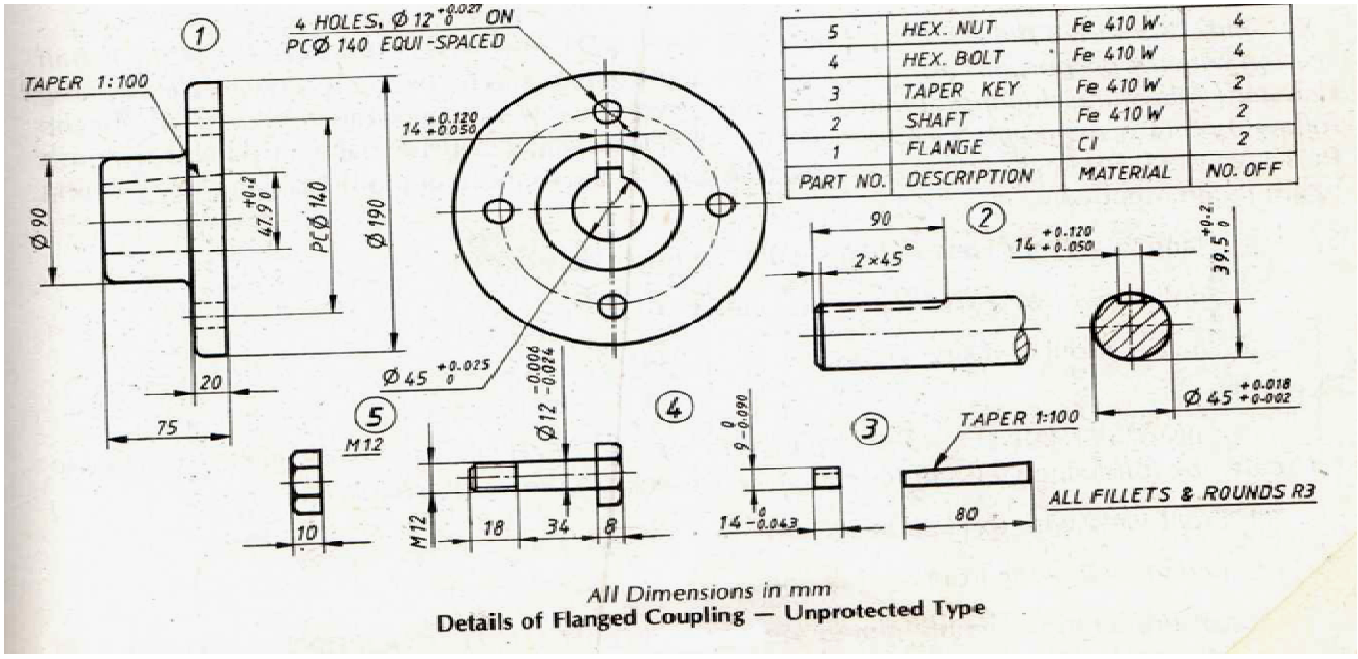


FIG 1. Knuckle Joint

(OR)

(b) Details of a Flanged Coupling - Unprotected type are shown in fig (2) .Draw to 1:1 scale, the following views of the coupling showing all the parts assembled with one of the shafts being projected by a distance of 5mm into the bore of the other flange. Front view with top half in section. (20)



PART NO.	DESCRIPTION	MATERIAL	NO. OFF
5	HEX. NUT	Fe 410 W	4
4	HEX. BOLT	Fe 410 W	4
3	TAPER KEY	Fe 410 W	2
2	SHAFT	Fe 410 W	2
1	FLANGE	CI	2

Fig 2. Flanged coupling

PART C (1 x 60 = 60 Marks)

12.(a) Figure (3) shows the details of an I. C. Engine Connecting rod. Draw the following assembled views of the connecting rod with its axis horizontal, assume the scale.

a) Front view with top half in section. (35)

b) Top view with front half in section. (25)

(OR)

(b)The details of a tailstock are shown in fig 4. Assemble all parts correctly and draw the following views of the assembled tailstock, assume the scale.

a) Front view section. (35)

b) Top view. (25)

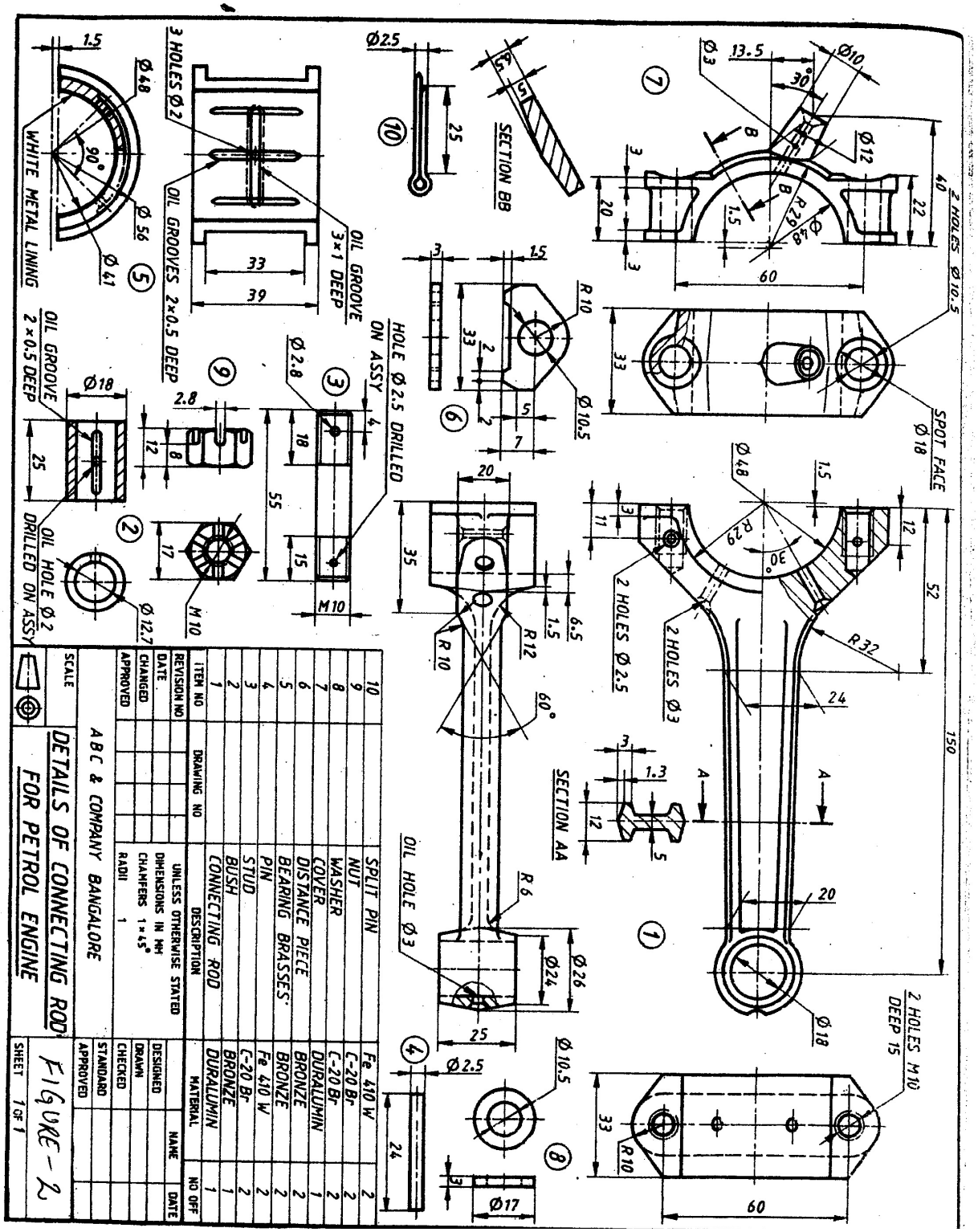


Fig 3.Connecting Rod

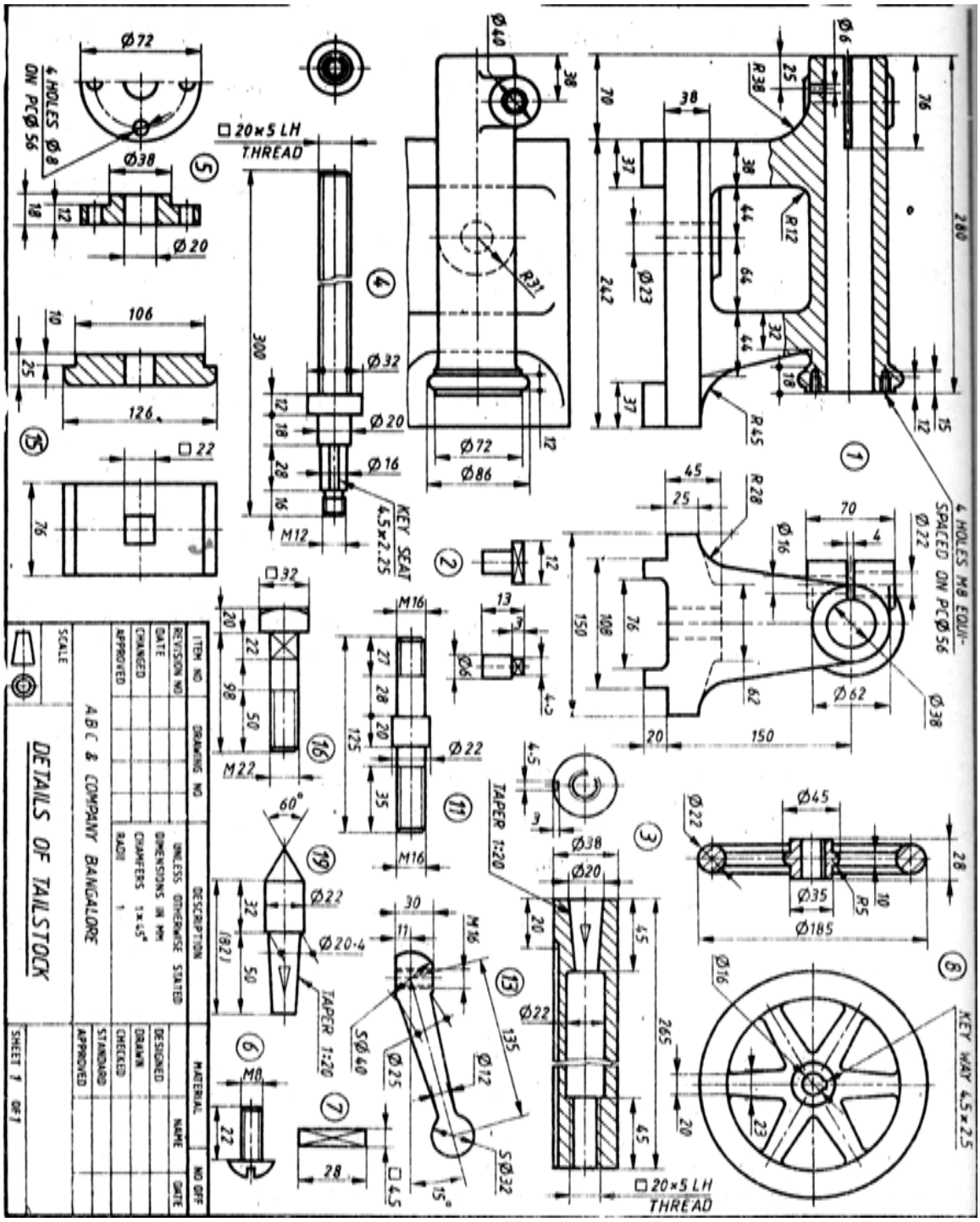


Fig 4 Tailstock