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Question Paper Code: 41476

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Fourth Semester

Mechanical Engineering

14UME406 – MACHINE DRAWING

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (2 x 20 = 40 Marks)

1. (a) Draw (i) sectional view from the front, (ii) the view from above and (iii) the view from the right of the shaft support shown in Figure 1. (20)

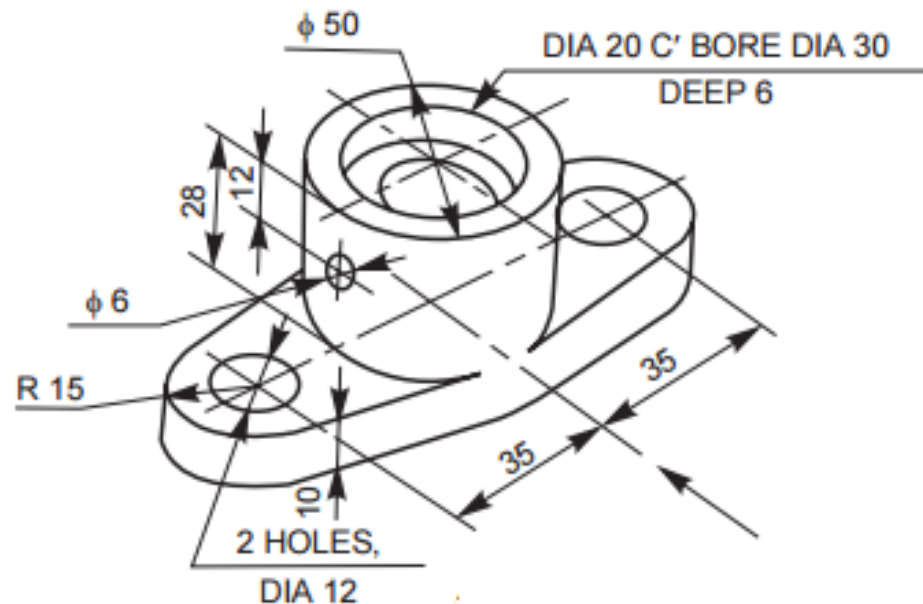


Figure 1

Or

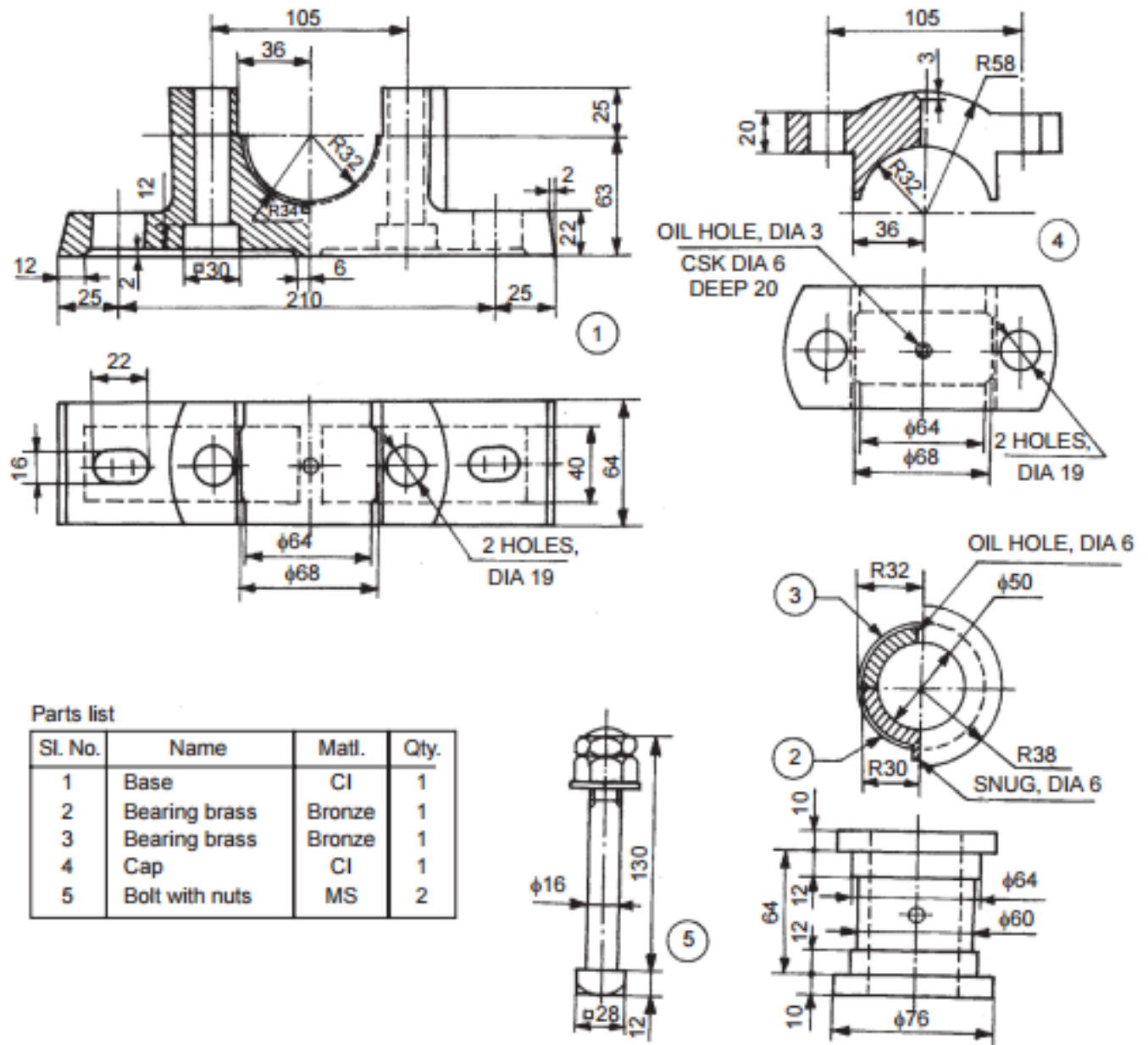
- (b) (i) Calculate the fundamental deviations for the hole size 40 D9. (5)
- (ii) A journal bearing consists of a bronze bush of diameter 100 *mm* fitted into a housing and a steel shaft of 50 *mm* diameter, running in the bush, with oil as lubricant. Determine the working dimensions of (a) bore of the housing, (b) bush and (c) shaft. Calculate the maximum and minimum interference or clearance. (15)
2. (a) (i) Discuss briefly about the indication of special surface roughness characteristics. (10)
- (ii) Explain in details about the indications of surface roughness symbols on drawings. (10)

Or

- (b) Explain the various forms of threads and discuss any four forms of threads with neat sketches. (20)

PART - B (1 x 60 = 60 Marks)

3. (a) Assemble the parts of universal coupling as shown in Figure 2 and draw,
(i) Half sectional front view and
(ii) Top view (60)



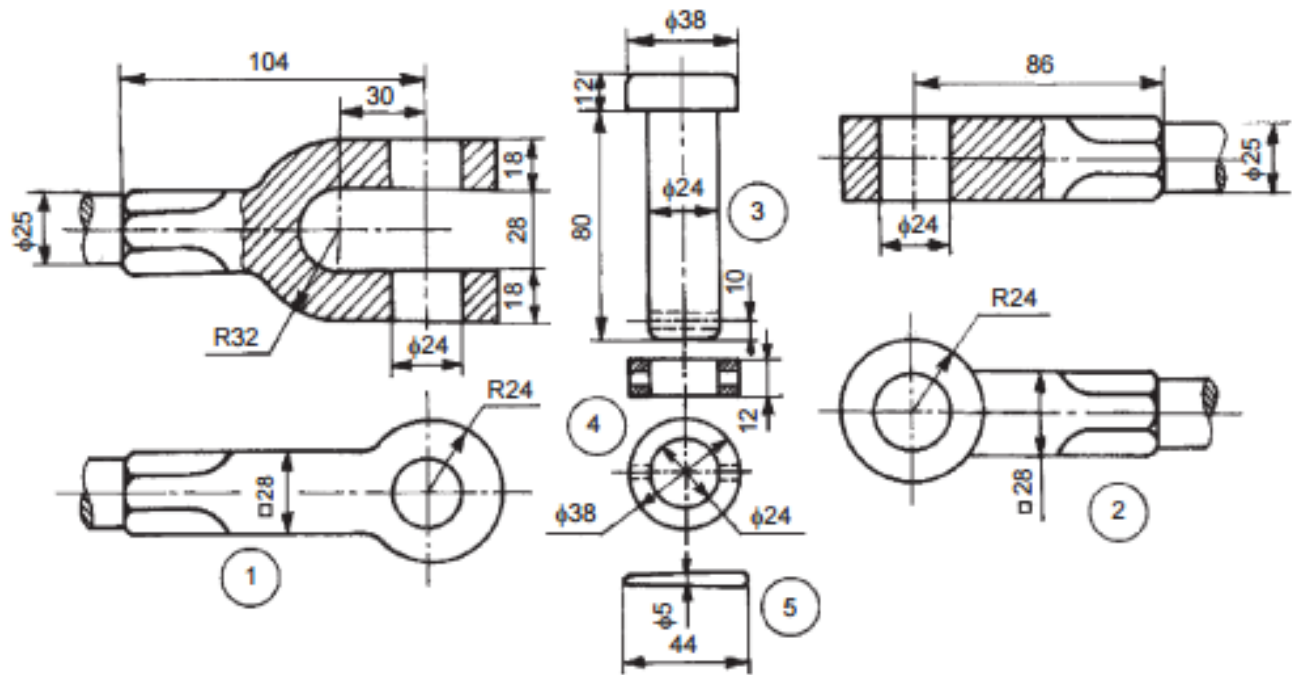
Parts list

Sl. No.	Name	Matl.	Qty.
1	Base	CI	1
2	Bearing brass	Bronze	1
3	Bearing brass	Bronze	1
4	Cap	CI	1
5	Bolt with nuts	MS	2

Figure 2

Or

- (b) Assemble the parts of a knuckle joint, shown in Figure 3 and draw, (i) sectional view from the front and (ii) view from above. (60)



Parts list

Sl. No.	Name	Matl.	Qty.
1	Fork end	Forged steel	1
2	Eye end	Forged steel	1
3	Pin	Mild steel	1
4	Collar	Mild steel	1
5	Taper pin	Mild steel	1

Figure 3