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Question Paper Code: 54706

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

Fourth Semester

Mechanical Engineering

15UME406 - MACHINE DRAWING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (2 x 20 = 40 Marks)

1 (a) What is the need for sectioning? Explain broken section and revolved section with neat sketch. CO1-U (20)

Or

(b) Why hole basis system is preferred over shaft basis system? Explain with suitable example and sketch. CO1-U (20)

2 (a) (i) How are the following threads designated as per BIS : CO2-U (10)

(a) Metric thread with coarse pitch.

(b) Metric thread with fine pitch.

(c) Square thread.

(d) ACME thread.

(ii) Explain the eye bolt with neat sketches and what purpose is it used. CO2-U (10)

Or

(b) (i) State the conventions followed in representing threads in drawing. Draw the representation for internal and external threads. CO2-U (10)

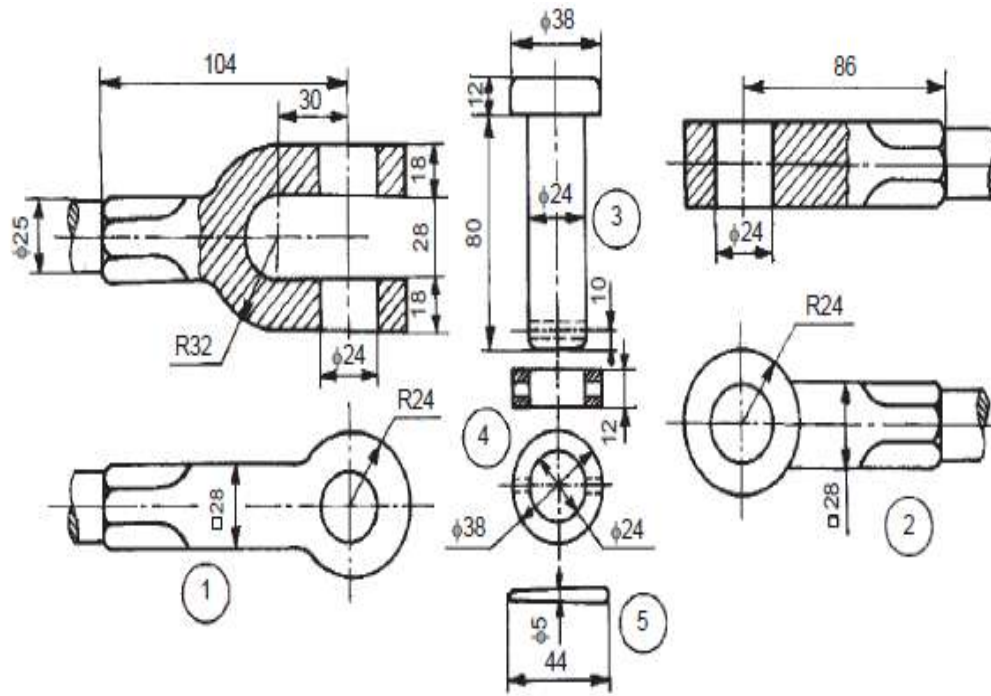
(ii) Illustrate the types of keys. Draw a gib headed key with its proportions. CO2-U (10)

PART B - (1 x 60 = 60 Marks)

- 3 (a) The Part details of Knuckle joint are shown in figure. Construct the assembled views. CO4-U (60)

- (i) Draw full sectional front view for assembled part.
 (ii) Draw plan for assembled part.

Details of Knuckle joint

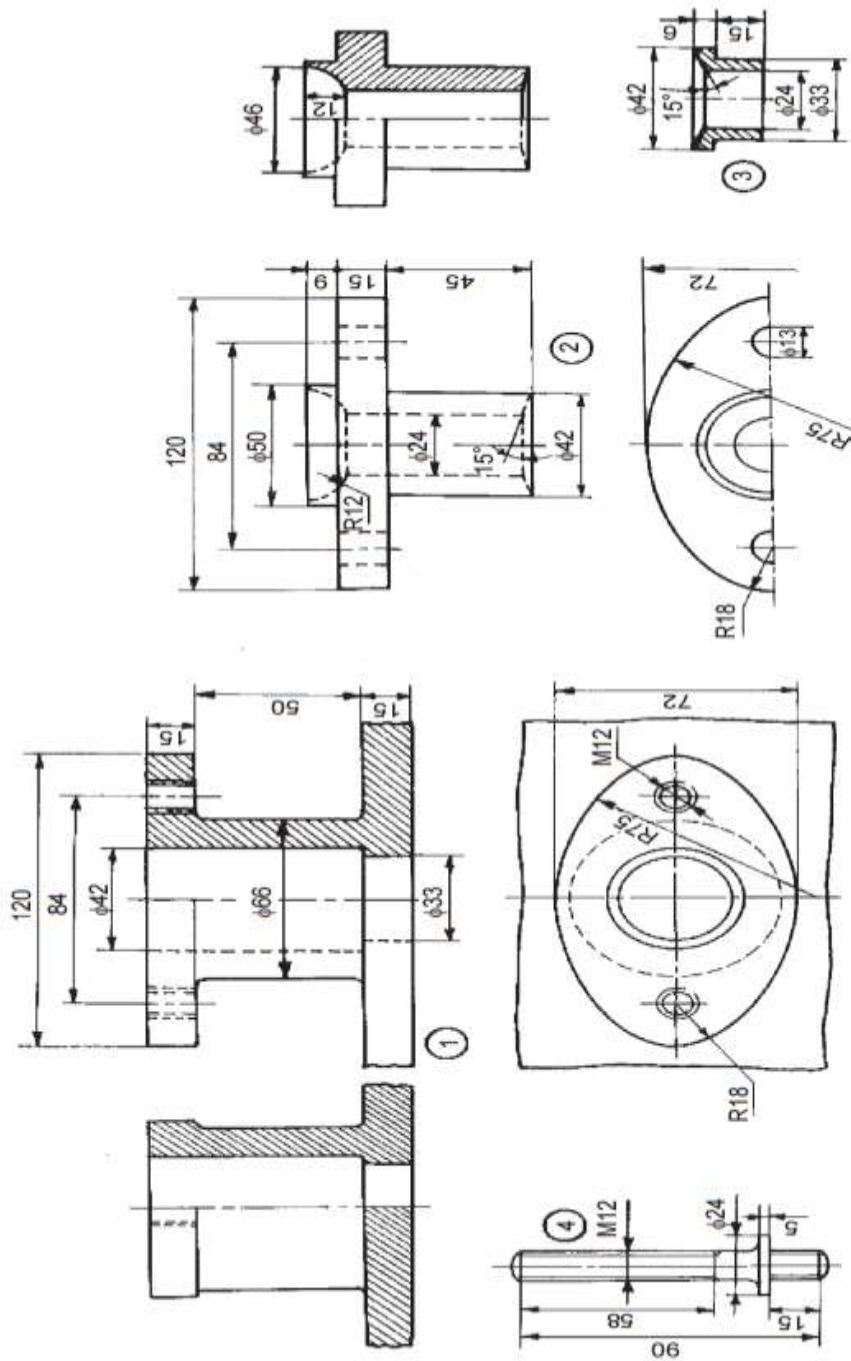


Parts list

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

Or

- (b) Assemble the parts of the Stuffing box and draw the following views: CO5-U (60)
- (i) Full sectional Elevation
 (ii) Plan View



Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Gland	Brass	1
3	Bush	Brass	1
4	Stud	MS	2
5	Nut, M12	MS	2

