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Question Paper Code: 54706

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Fourth Semester

Mechanical Engineering

15UME406 - MACHINE DRAWING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

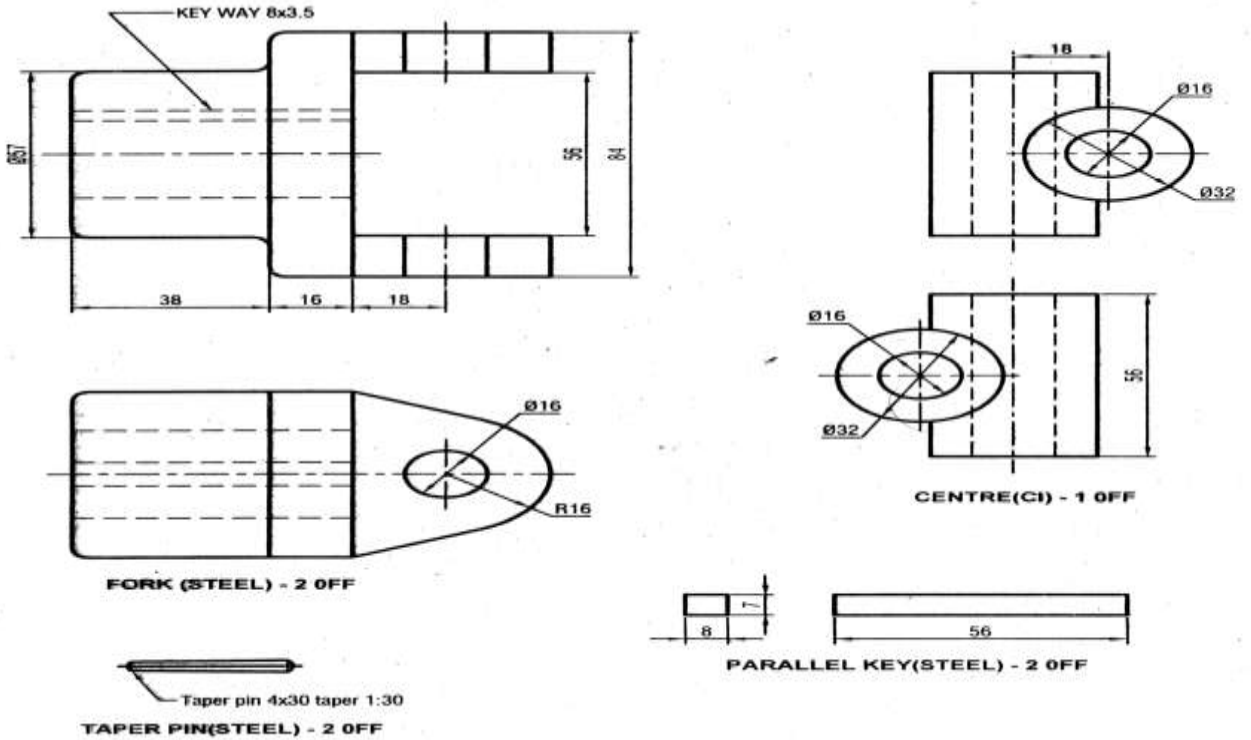
Answer ALL Questions

PART A - (2 x 20 = 40 Marks)

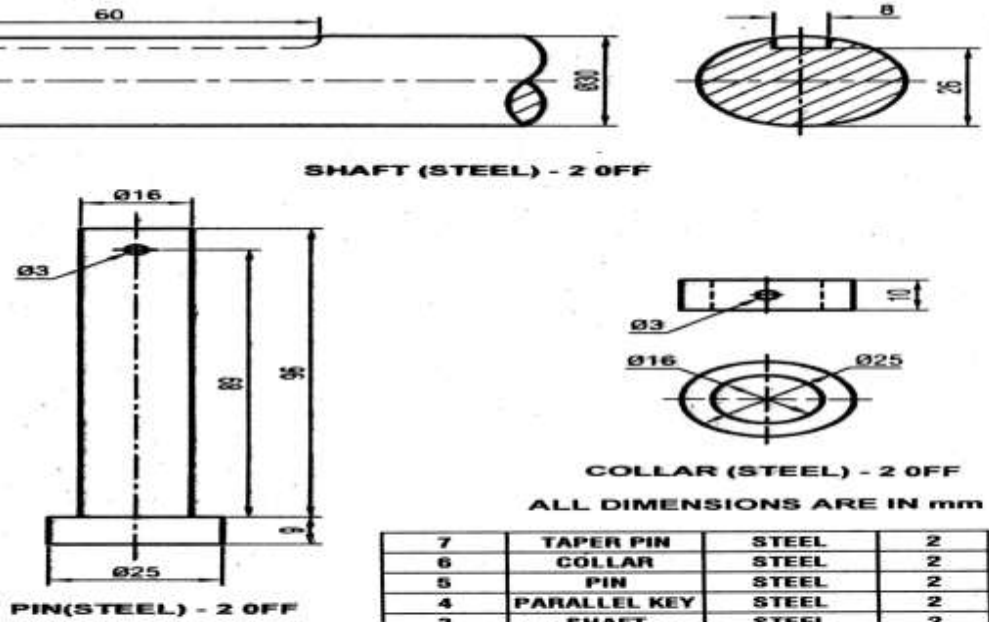
1. (a) Describe the different types of sectional views with suitable examples (20)
- Or
- (b) (i) Explain the term tolerance zone with reference to the tolerance of form and position. (10)
- (ii) With examples, show the method of indicating surface roughness on the following components : (10)
- (a) symmetrical surfaces requiring the same quality,
- (b) cylindrical part.
2. (a) (i) Define the following thread profiles and its applications with neat sketches (12)
- (a) BSW thread,
- (b) Buttress thread
- (c) Square thread,
- (d) ACME thread and
- (e) Worm thread.
- (ii) Explain the eye bolt with neat sketches and what purpose is it used. (8)
- Or
- (b) (i) Explain and Sketch the taper sunk key in two views, as fitted in position between a shaft and the mounting with suitable dimension. (12)
- (ii) What is feather key and its types with neat sketches? (8)

PART B - (1x 60 = 60 Marks)

3. (a) The part details of a universal coupling is shown in figure. Sketch the assembled views: (60)



DETAILS OF UNIVERSAL COUPLING



ALL DIMENSIONS ARE IN mm

PART NO.	NAME	MATERIAL	NO.OFF
7	TAPER PIN	STEEL	2
6	COLLAR	STEEL	2
5	PIN	STEEL	2
4	PARALLEL KEY	STEEL	2
3	SHAFT	STEEL	2
2	CENTRE	CAST IRON	1
1	FORK	CAST STEEL	2

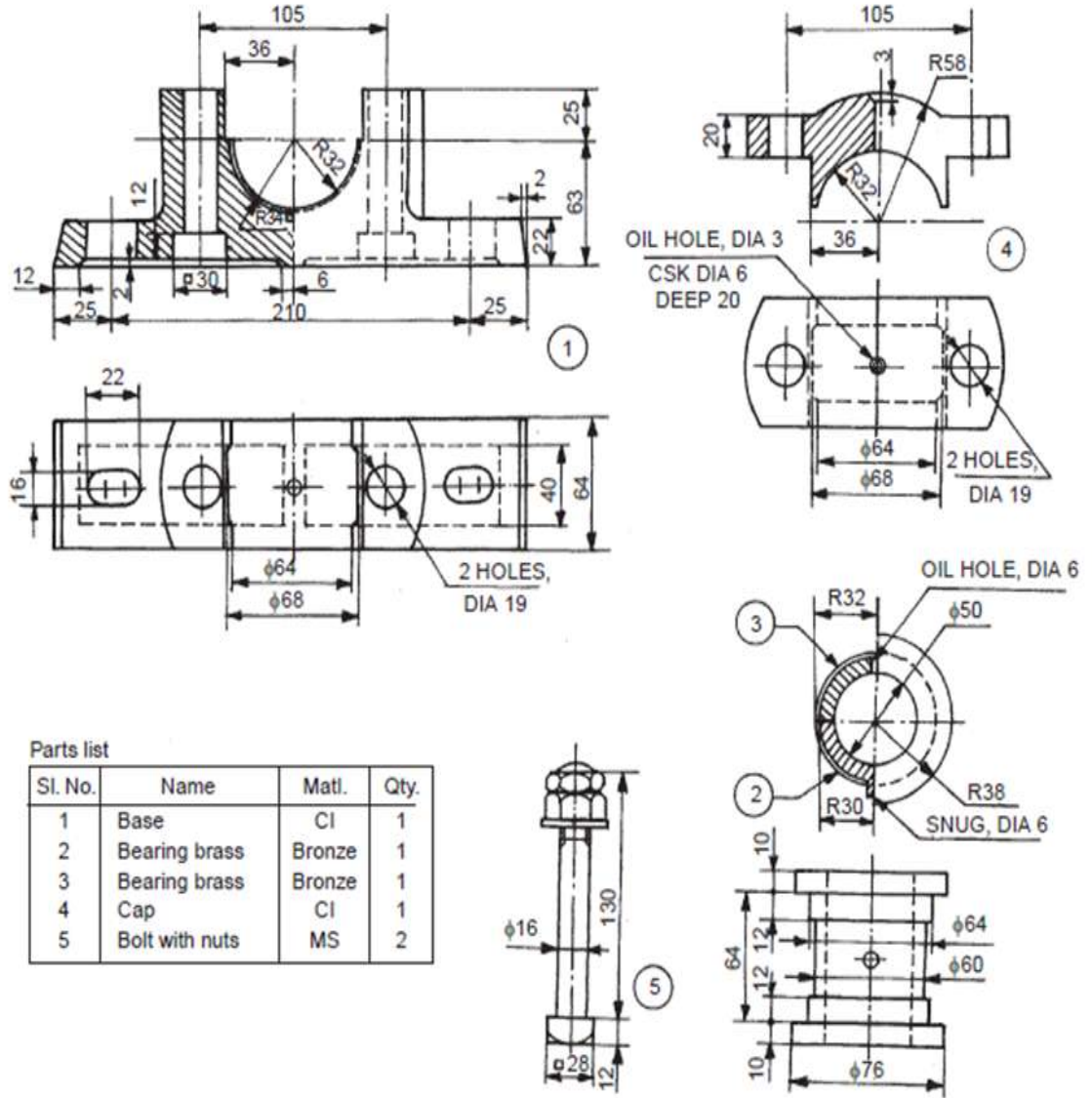
UNIVERSAL COUPLING

SCALE 1:2.5

Or

(b) Assemble the parts of the Plummer block, shown in Fig. 2 and draw the following views: (60)

- (i) Half sectional view from the front, with left half in section, and
- (ii) View from above



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

