

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-III(New) EXAMINATION – SUMMER 2016**

**Subject Code:2133405****Date:09/06/2016****Subject Name:Manufacturing and Assembly Drawing****Time:10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		<b>MARKS</b>
<b>Q.1</b>	<b>Short Questions</b>	<b>14</b>
	1 Draw the symbol for Profile of a line _____	
	2 Draw the symbol for Profile of a surface _____	
	3 Draw the symbol for angularity _____	
	4 Draw the symbol for Parallelism _____	
	5 Draw the symbol for Concentricity _____	
	6 Draw the symbol for Runout _____	
	7 Draw the symbol for Cylindricity _____	
	8 Draw the symbol for Straightness _____	
	9 abbreviation for Long _____	
	10 abbreviation for Meter _____	
	11 abbreviation for Low Carbon steel _____	
	12 Draw the symbol for fillet weld _____	
	13 Draw the symbol for spot weld _____	
	14 Draw the symbol for Square Butt Weld _____	
<b>Q.2</b>	(a) Define Fit.	<b>03</b>
	(b) What are the different types of fits? What are the applications of fits?	<b>04</b>
	(c) Explain about shaft basis system with suitable example.	<b>07</b>
	<b>OR</b>	
	(c) Draw to 1:1 scale the top view and sectional front view of a double riveted lap joint. Thickness of plates is 9mm. Show atleast three rivets in each row. Indicate all dimensions. Use snap head rivets.	<b>07</b>
<b>Q.3</b>	(a) Write a short note on Magnesium alloys.	<b>07</b>
	(b) Write the effects of adding alloying elements Cr, V & W to steels.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain about cast irons & alloy cast irons.	<b>07</b>
	(b) Draw the conventions for the following: (i) Bearing, (ii) Holes on a Circular Pitch, (iii) Convention for Ratchet and Pinion & (iv) Tension Spring.	<b>07</b>
<b>Q.4</b>	(a) What is production drawing?	<b>03</b>
	(b) What information must be provided in Production drawing to facilitate its manufacturing and assembly?	<b>04</b>
	(c) Classify and describe the various types of Production drawing.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Explain about Unilateral & Bilateral tolerances.	<b>07</b>
	(b) Define following (i) Pitch, (ii) Row Pitch, (iii) Diagonal Pitch, (iv) Margin, (v) chain riveting, & (vi) zig-zag Riveting.	<b>07</b>

Q.5 The component parts of a plummer block are shown in fig.2. Prepare the front view in section of the assembly. 14

OR

Q.5 Draw the front view in section of the assembly of two cavity, two plate injection mould for a disc of diameter 30 mm, and thickness 2 mm. 14

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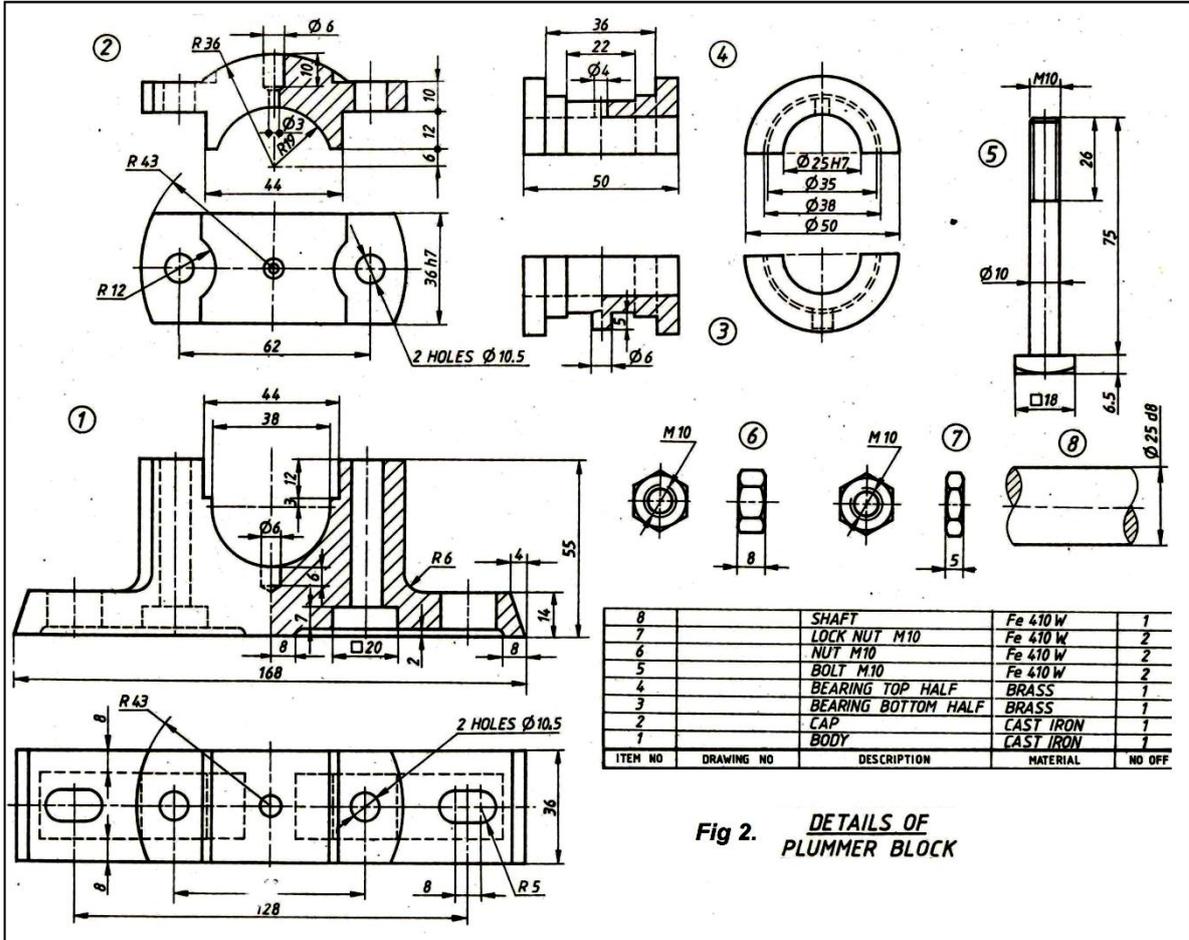


Fig 2. DETAILS OF PLUMMER BLOCK