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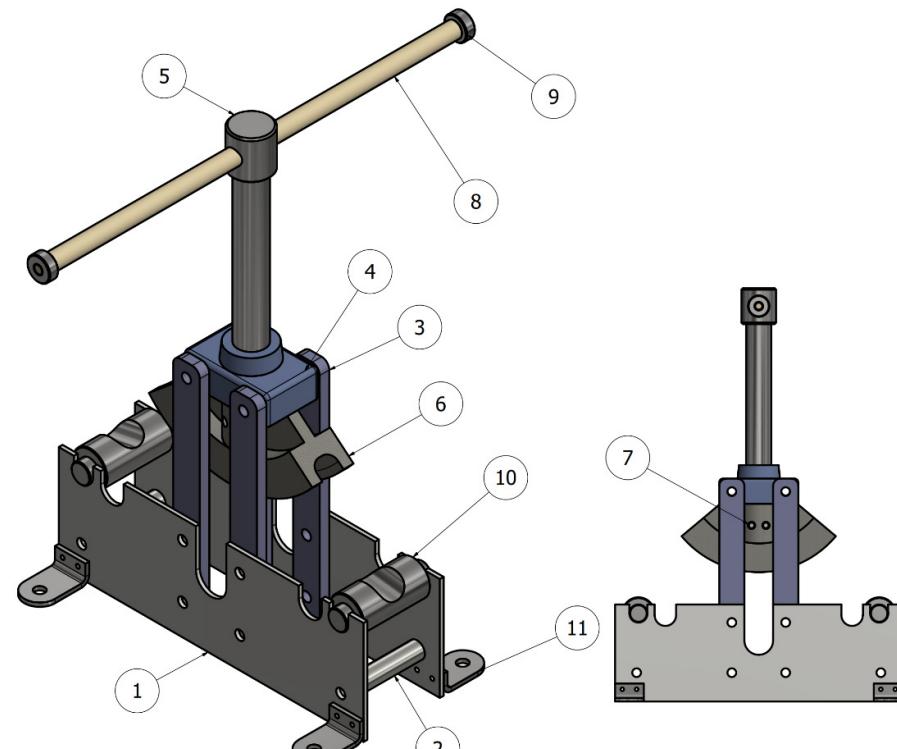


Figure 1

Q1: The parts of Pipe bending machine as shown in Fig. 1 are given below in adjoining Figures. Generate the parts of the machine by using Autodesk Inventor, assemble the parts to form the machine.

The marks are divided in the following categories:

- | | |
|--|-------------------|
| 1. Generation of parts | (20 Marks) |
| 2. Assembly | (05 Marks) |
| 3. Top View and Sectional front views of assembly with overall dimensions. | (04 Marks) |
| 4. Submitting files in said format | (01 Mark) |

Note for Submission:

Save all the part files, assembly and drawing files in a single folder. The name of the folder will be

"Token Number_Re-Major_Entry No_Group No".

(e.g.205_Re-Major_2019PH12345_01).

Then compress the folder in "**.zip**" **format** and provide the name to that zip file same as the folder name. This zip file you have to upload on moodle followed by the link <http://moodle.iitd.ac.in/> You may zip your folder by right click on the folder and select "add to archive" and then select zip format from the window then select ok.

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CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: ASSEMBLY RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.00
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.00	SHEET 1 of 12
ALL DIMENSIONS ARE IN MM.			REV. 0

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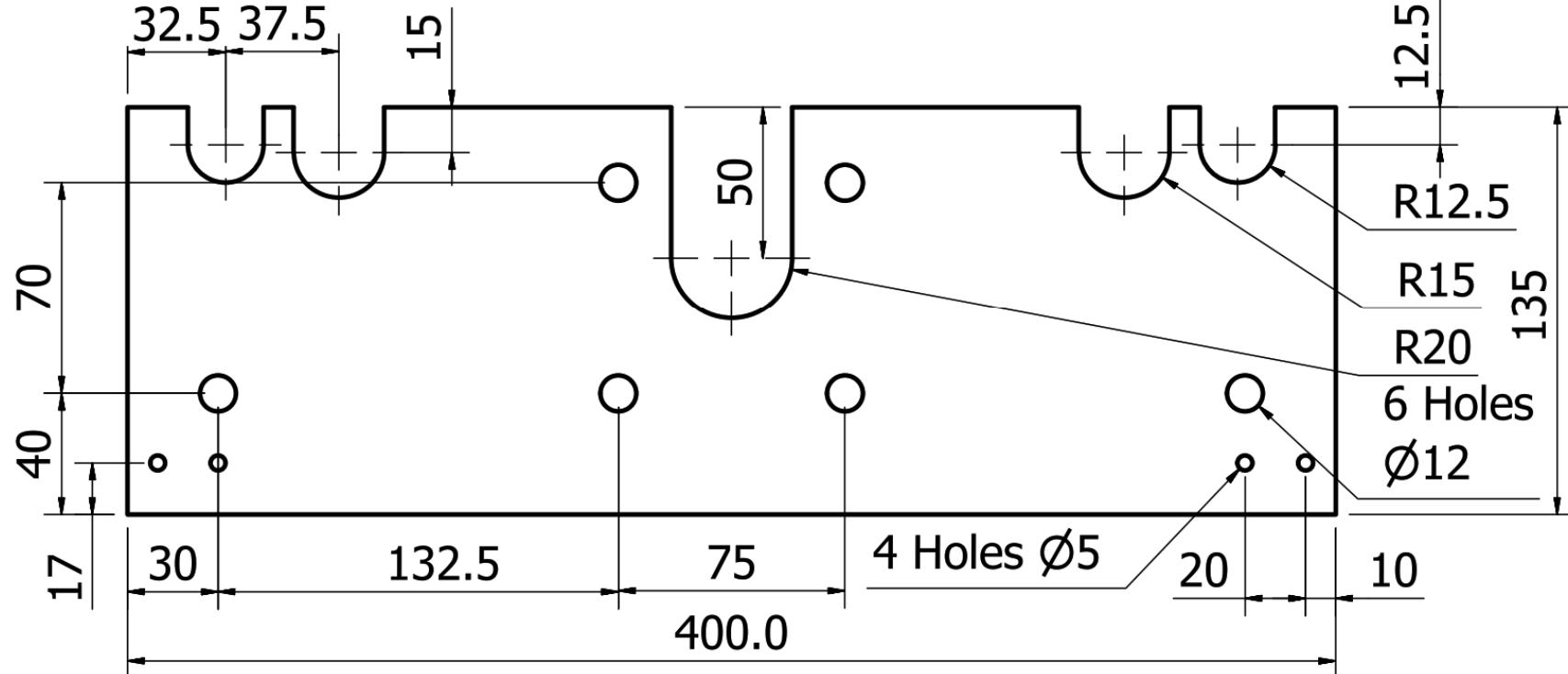
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CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
MAJOR EXAM: MCP 100		TITLE: PART RM.01	
PAPER 1: SOFTWARE BASED		PART NO: RM.01.01	
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.01	SHEET 2 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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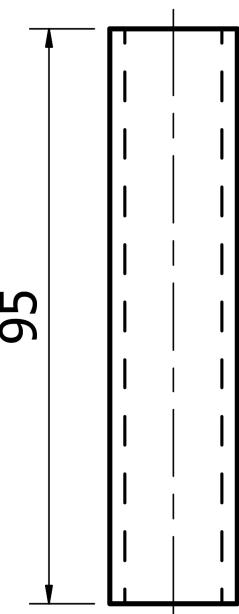
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 $\phi 21$ **Part 2** $\phi 16$ 

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DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
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APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.02
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.02	SHEET 3 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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Part 3

DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.03
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.03	SHEET 4 of 12
ALL DIMENSIONS ARE IN MM.			REV. 0

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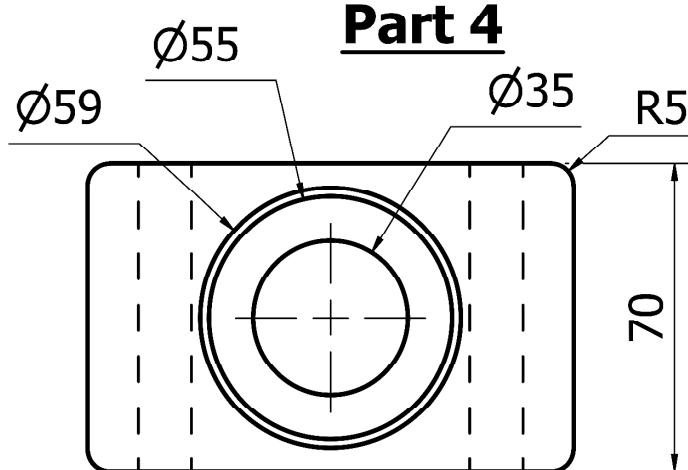
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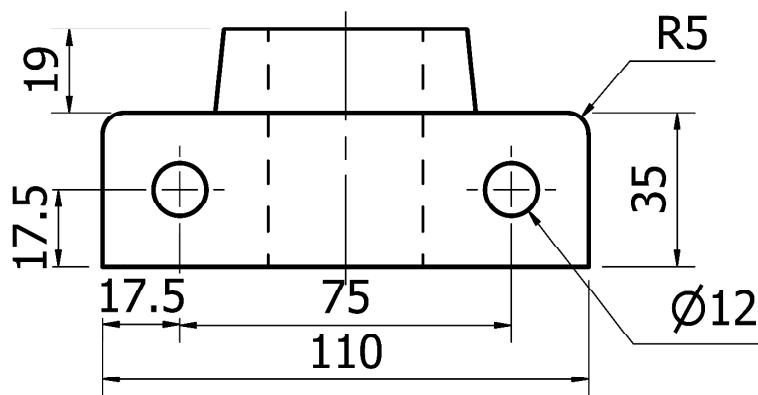
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DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
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ALL DIMENSIONS ARE IN MM.		REV. 0	

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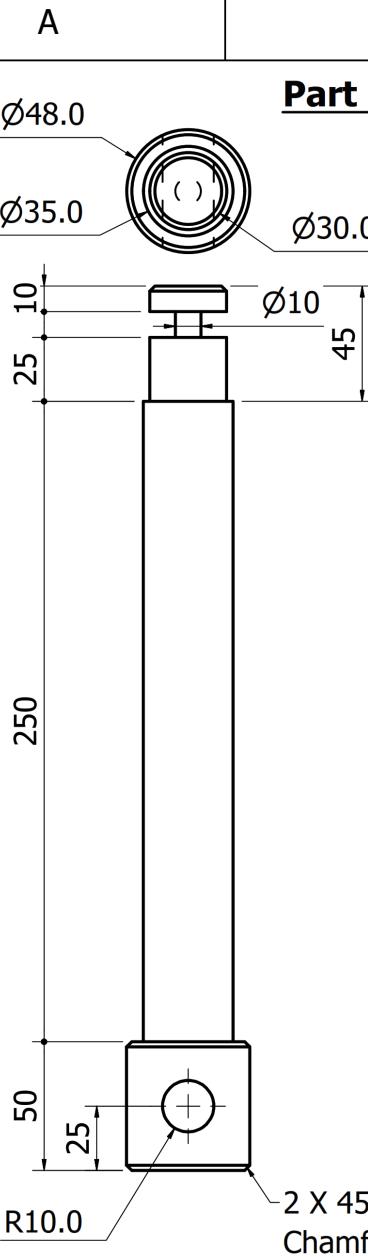
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DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.05
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.05	SHEET 6 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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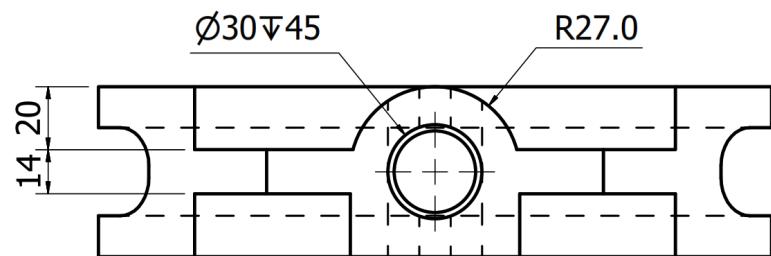
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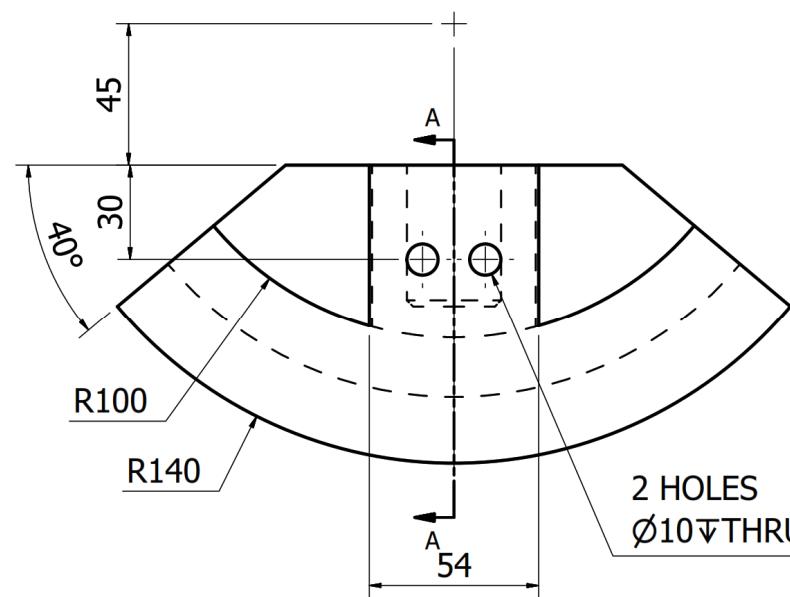
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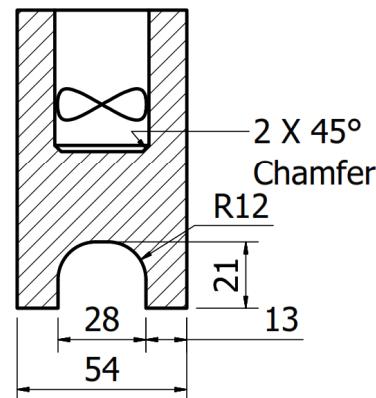


Part 6

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DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.06
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.06	SHEET 7 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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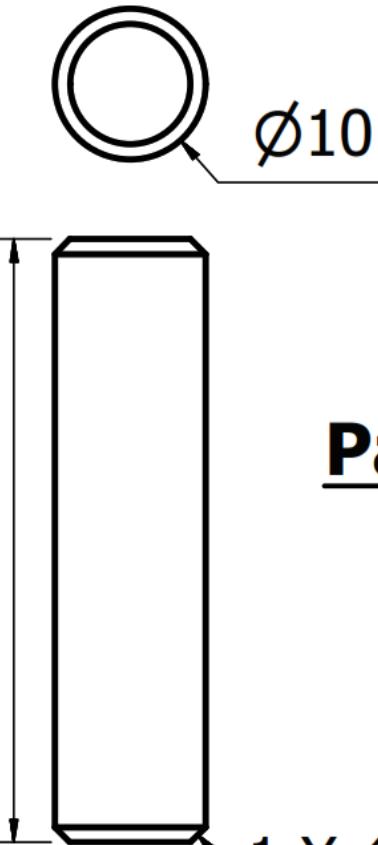
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Part 7

$1 \times 45^\circ$
Chamfer



DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
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APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.07
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.07	SHEET 8 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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Part 8

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1 X 45°
Chamfer

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12

1 X 45°
Chamfer

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DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
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APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.08
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.08	SHEET 9 of 12
ALL DIMENSIONS ARE IN MM.			REV. 0

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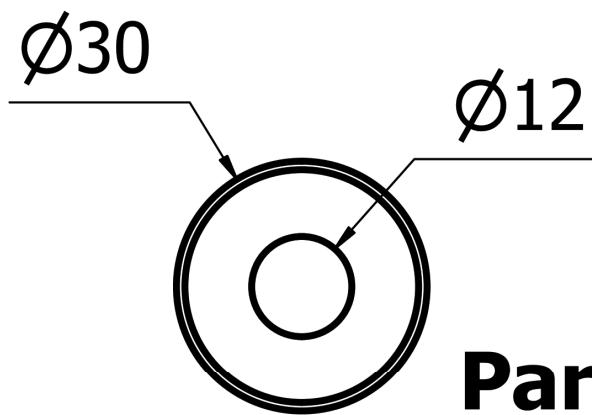
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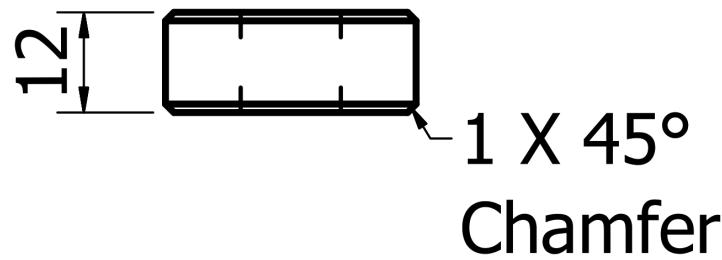
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Part 9



DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.09
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.09	SHEET 10 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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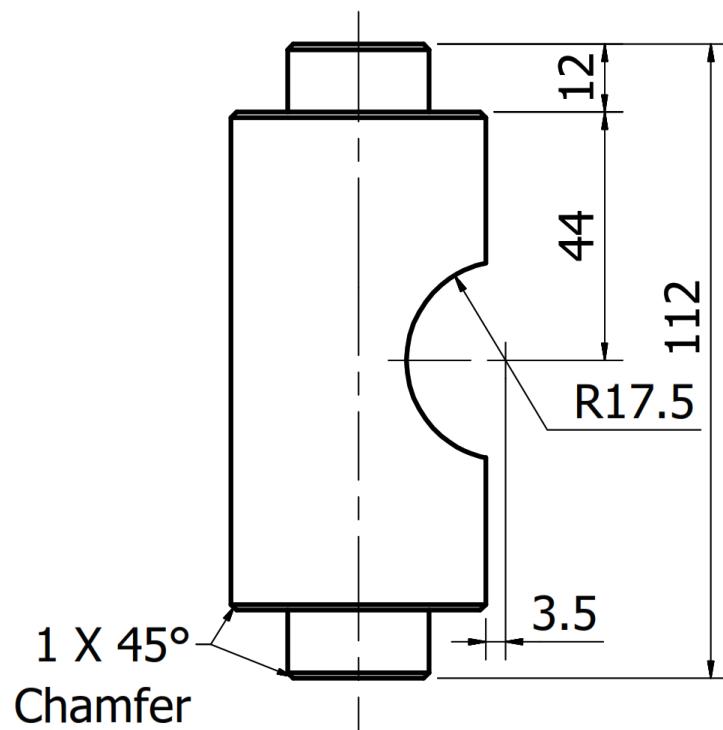
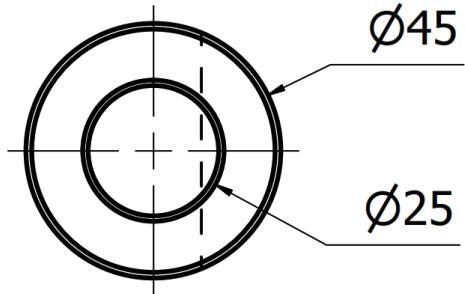
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Part 10



DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100 TITLE: PART RM.01	
		PAPER 1: SOFTWARE BASED PART NO: RM.01.10	
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.10	SHEET 11 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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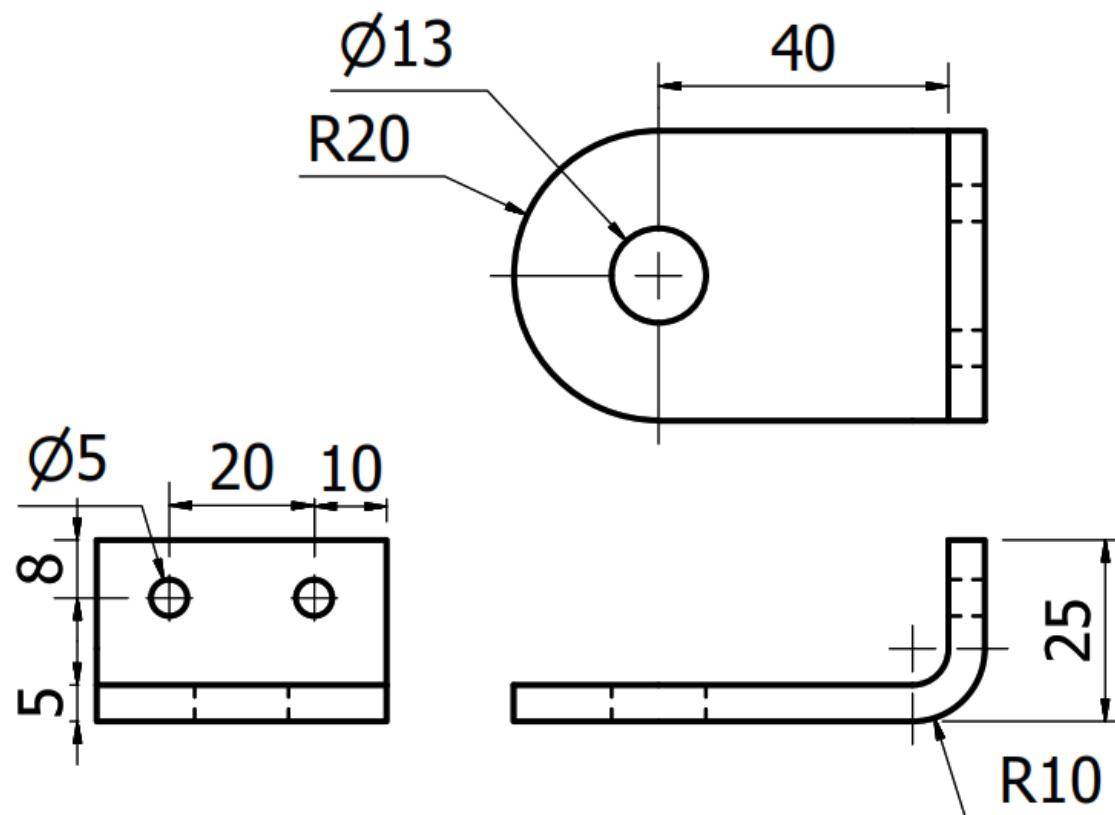
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DRN		DEPARTMENT OF MECHANICAL ENGINEERING, IIT DELHI	
CHKD		MCP 100 :ENGINEERING VISUALIZATION & COMMUNICATION	
APPD		II SEMESTER AY 2019-2020	
		MAJOR EXAM: MCP 100	TITLE: PART RM.01
		PAPER 1: SOFTWARE BASED	PART NO: RM.01.11
SCALE: 1:1	DO NOT SCALE DRAWING	DRAWING NO: 2019- 20/II/RM.01.11	SHEET 12 of 12
ALL DIMENSIONS ARE IN MM.		REV. 0	

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