

QUESTION 4: MECHANICAL ASSEMBLY

Given:

- The exploded isometric drawing of the parts of a flange assembly, showing the position of each part relative to all the others.
- Orthographic views of each of the parts of the flange assembly in third angle orthographic projection.

Instructions:

- Answer this question on page 9.10.

Question:

Draw, to scale 1 : 1 and in third-angle orthographic projection, the following views of the assembled parts of the flange assembly.

- 4.1 **A sectional front view** on cutting plane A - A, as seen from the direction of the arrow shown on the exploded isometric drawing. The cutting plane, which passes vertically through the centre of the assembly, is shown on the left view of the housing (part 1).
- 4.2 **The left view.**

Note:

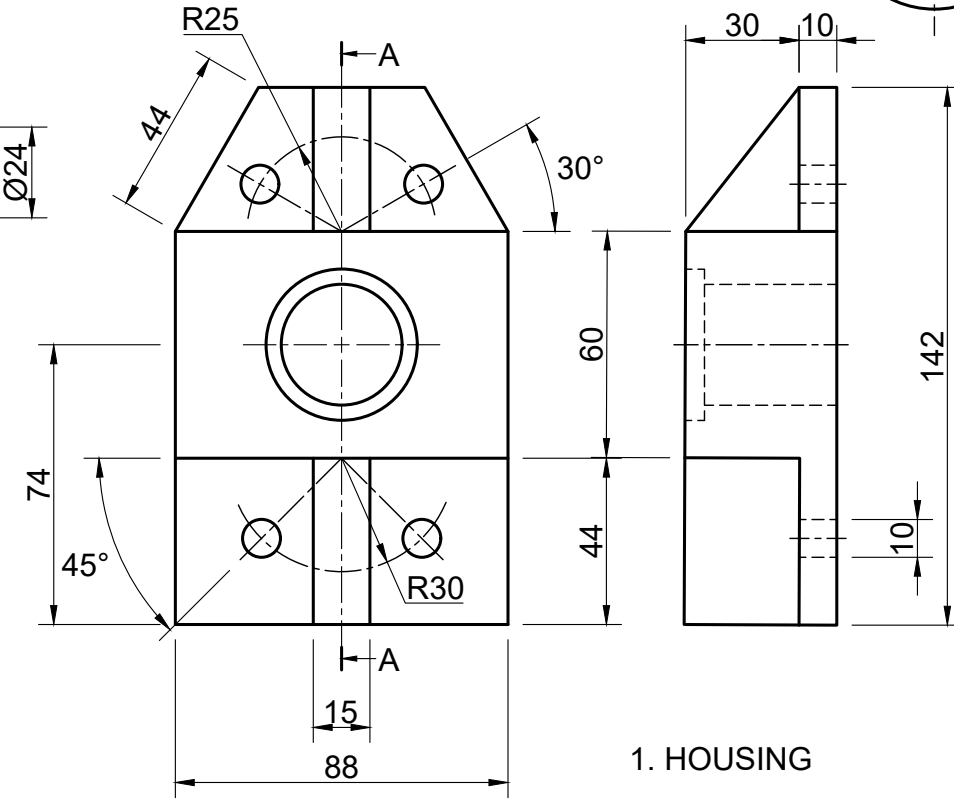
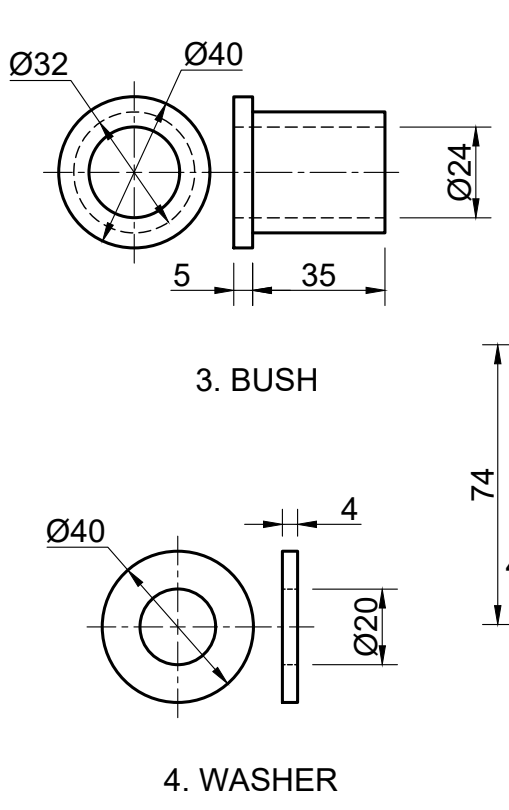
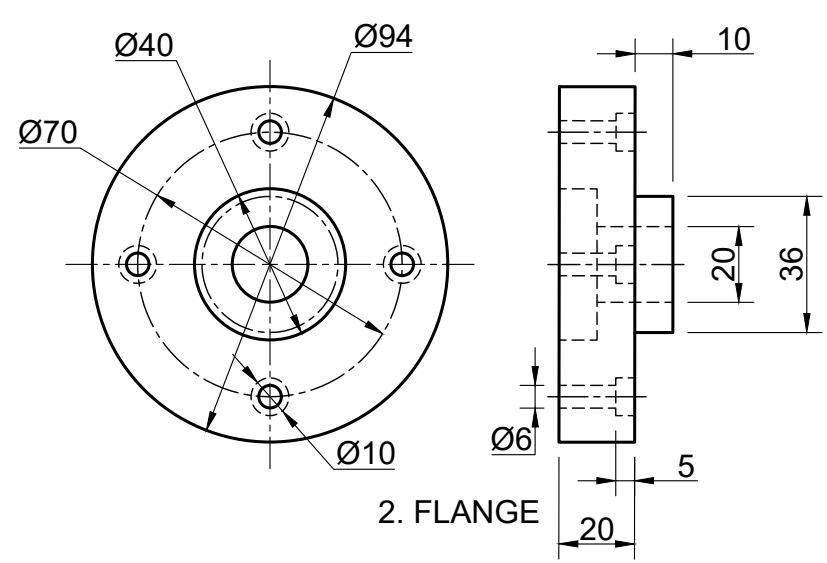
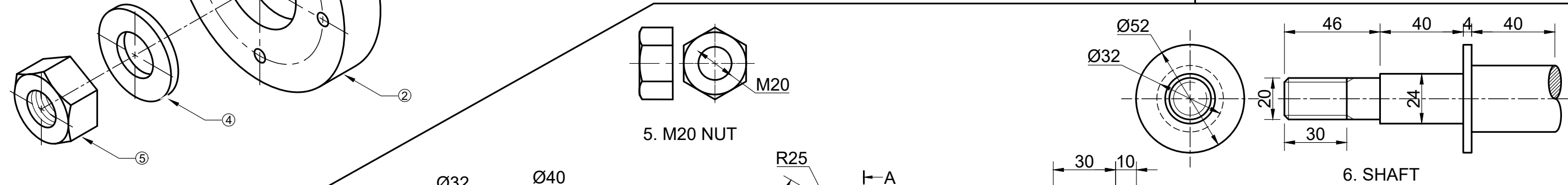
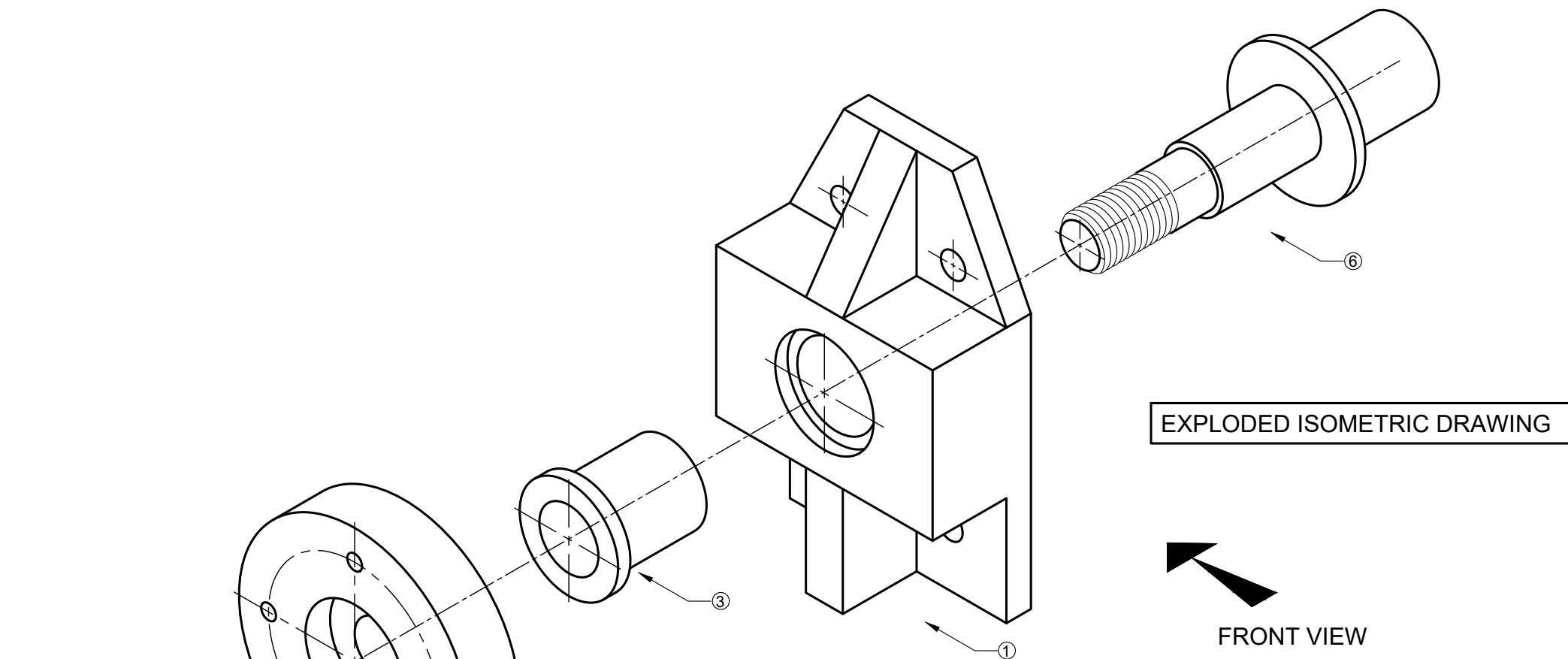
Add the following to the drawing:

- The cutting plane A - A to the correct view.
- The projection symbol in the space provided.
- Write the title and scale in the space provided:

**FLANGE
SCALE 1:1**

- The drawings must comply with the guidelines contained in the SANS 10111.
- Proper planning is essential.
- Show ALL the necessary construction for the M20 nut.
- NO hidden detail is required.

(80)



LIST OF PARTS		
	PARTS	QUANTITY
1	HOUSING	1
2	FLANGE	1
3	BUSH	1
4	WASHER	1
5	M20 NUT	1
6	SHAFT	1

ASSESSMENT CRITERIA				
SECTIONAL FRONT VIEW				
1	HOUSING	8.5		
2	FLANGE	12		
3	BUSH	4		
4	WASHER	1		
5	M20 NUT	7		
6	SHAFT	15		
SUB TOTAL 1		47,5		
LEFT VIEW				
1	HOUSING	10		
2	FLANGE	4		
5	M20 NUT	3.5		
6	SHAFT	1		
SUB TOTAL 2		18.5		
GENERAL				
7	CENTER LINE	6		
8	CUTTING PLANE AA	3		
9	TITLE AND SCALE	2		
10	PROJECTION SYMBOL	3		
SUB TOTAL 3		14		
GRAND TOTAL		80		

PROJECTION SYMBOL

TITLE
SCALE



MECHANICAL SECTIONAL DRAWING	ESTIMATED TIME FOR COMPLETION	40 MIN	GRADE 11	NAME & SURNAME		TASK 12.2	PAGE 9.10
	YOUR TIME OF COMPLETION	MIN					