



**higher education
& training**

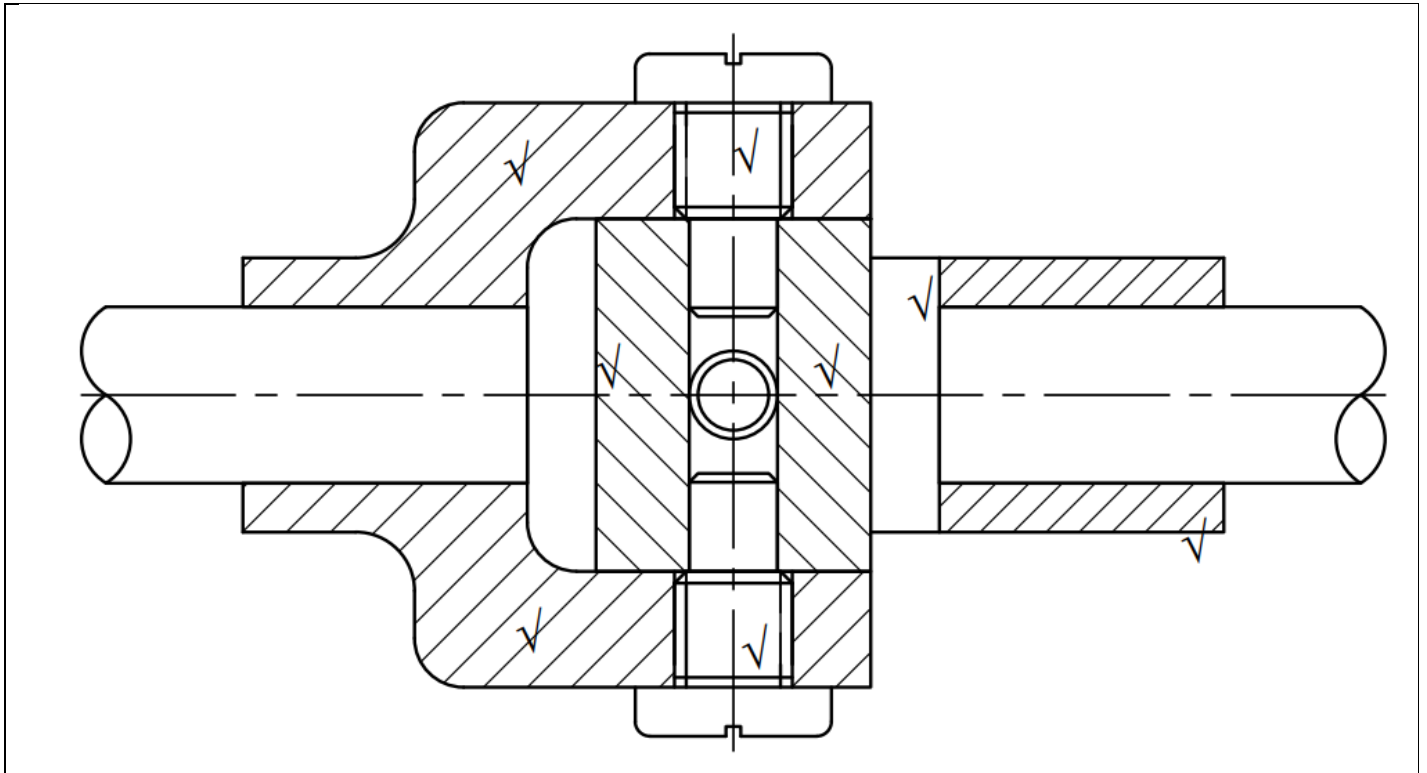
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE ENGINEERING DRAWING N3

24 November 2022

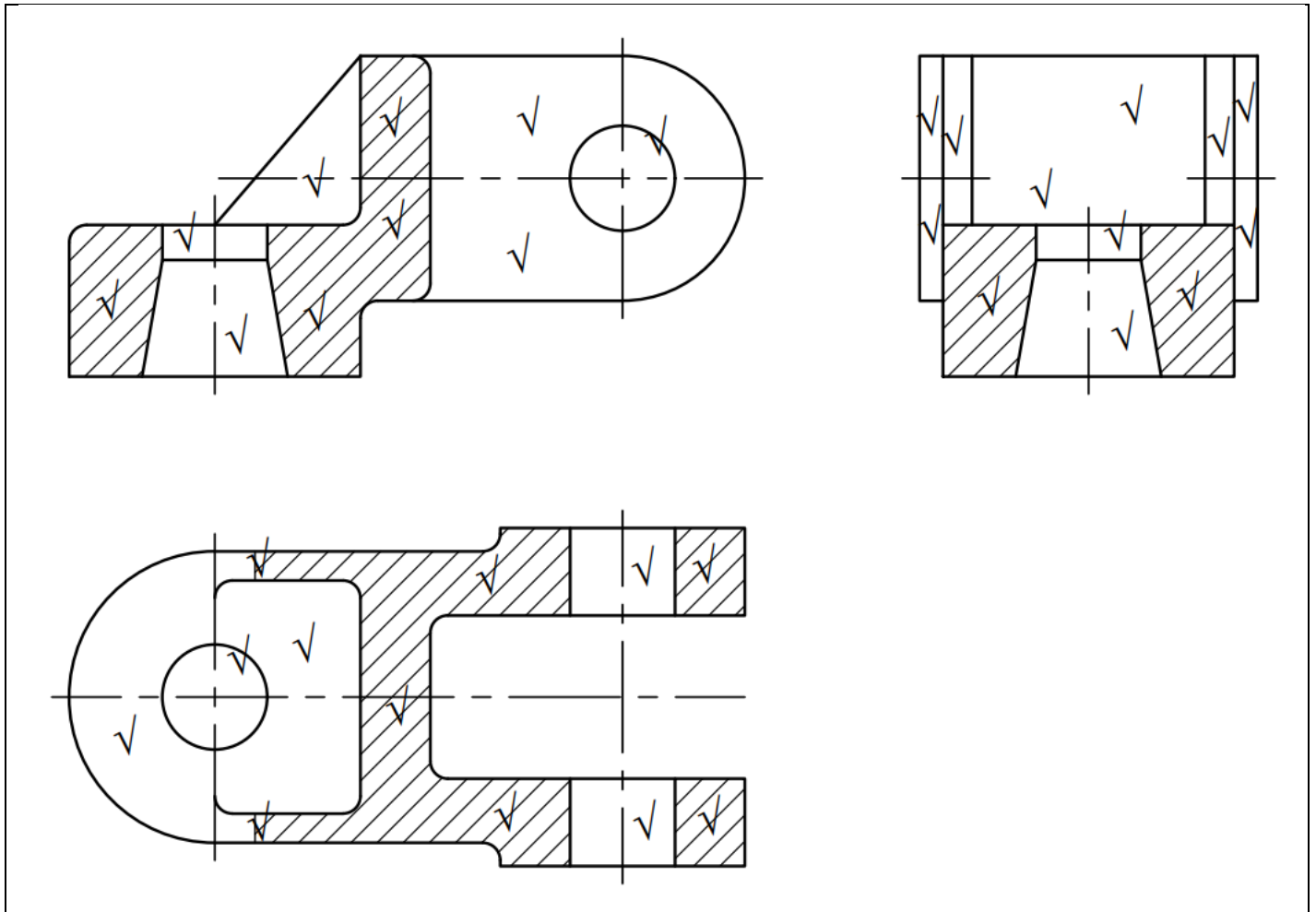
This marking guideline consists of 11 pages.

QUESTION 1**[10]**

MARK ALLOCATION	
Correctness	4
Line work	3
Accuracy and proportion	3
TOTAL:	[10]

MARK ALLOCATION FOR CORRECTNESS – QUESTION 1

$\frac{1}{2}$ mark for each of the areas indicated in the marking guideline: **4 marks**

QUESTION 2: SECTIONAL DRAWING**[25]**

MARK ALLOCATION		
Correctness	FSFV	5
	FSTV	6
	FSLV	6
Line work		3
Accuracy		3
Layout and neatness		2
TOTAL:		25

MARK ALLOCATION FOR CORRECTNESS – QUESTION 2**FSFV**

2 marks for correct sectioning	2 marks
½ mark for the Ø18 hole above the tapered hole not sectioned	½ mark
½ mark for the tapered hole not sectioned	½ mark
½ mark for the web not sectioned	½ mark
½ mark for the Ø18 hole	½ mark
1 mark for the vertical area on the right-hand side not sectioned	1 mark
TOTAL	5 marks

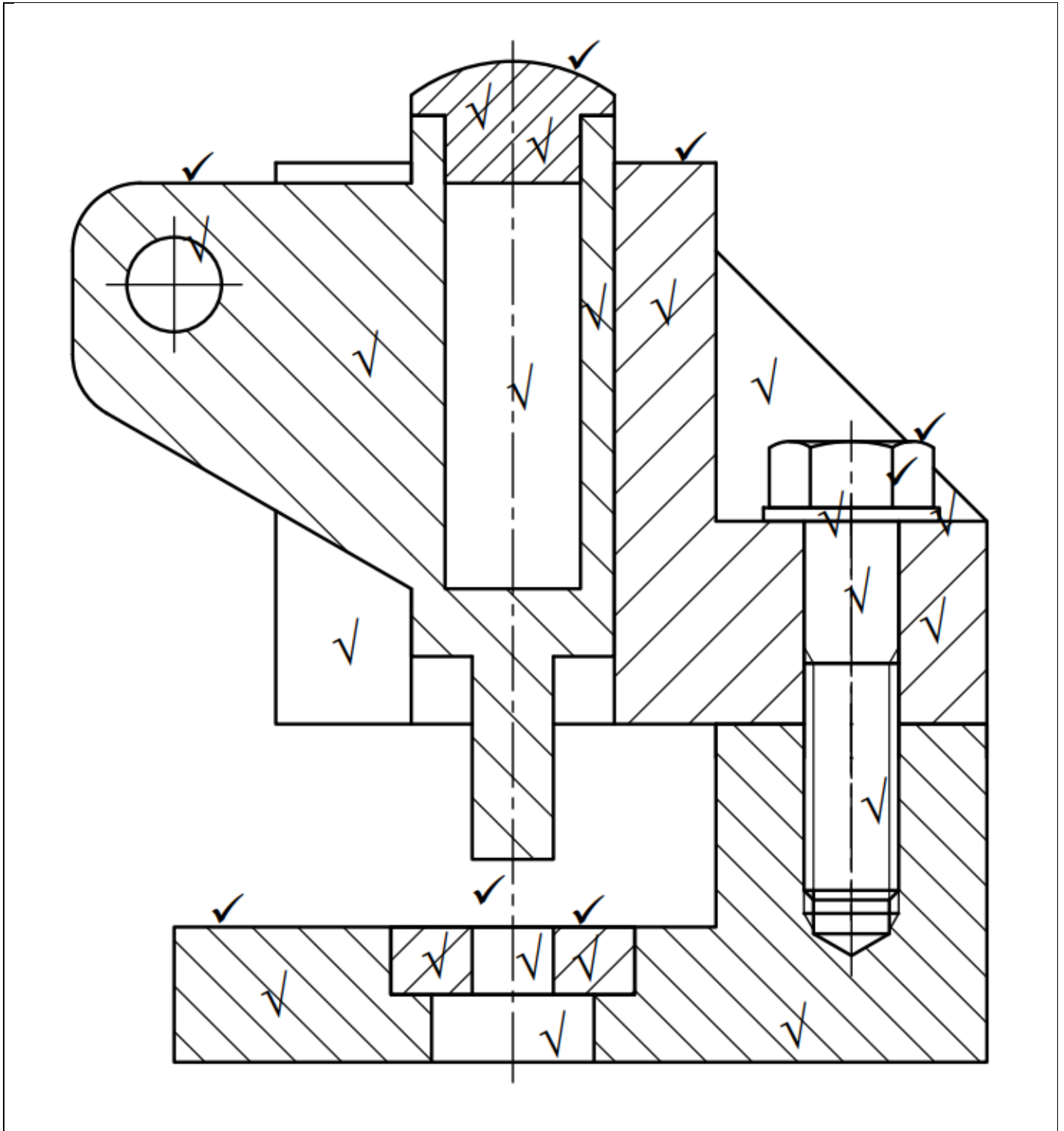
FSTV

2½ marks for correct sectioning	2½ marks
½ mark for each line indicating the edge of the cutting plane on the ribs	1 mark
1 mark for the top view of the base not sectioned	1 mark
½ mark for the Ø18 hole on the base	½ mark
½ mark for each of the Ø18 holes not sectioned	1 mark
TOTAL	6 marks

FSLV

1 mark for correct sectioning	1 mark
½ mark for the Ø18 hole above the tapered hole not sectioned	½ mark
½ mark for the tapered hole not sectioned	½ mark
1 mark for the upright not sectioned	1 mark
½ mark for each web not sectioned	1 mark
1 mark for the boss on each end not sectioned	2 mark
TOTAL	6 marks

QUESTION 3: ASSEMBLY DRAWING



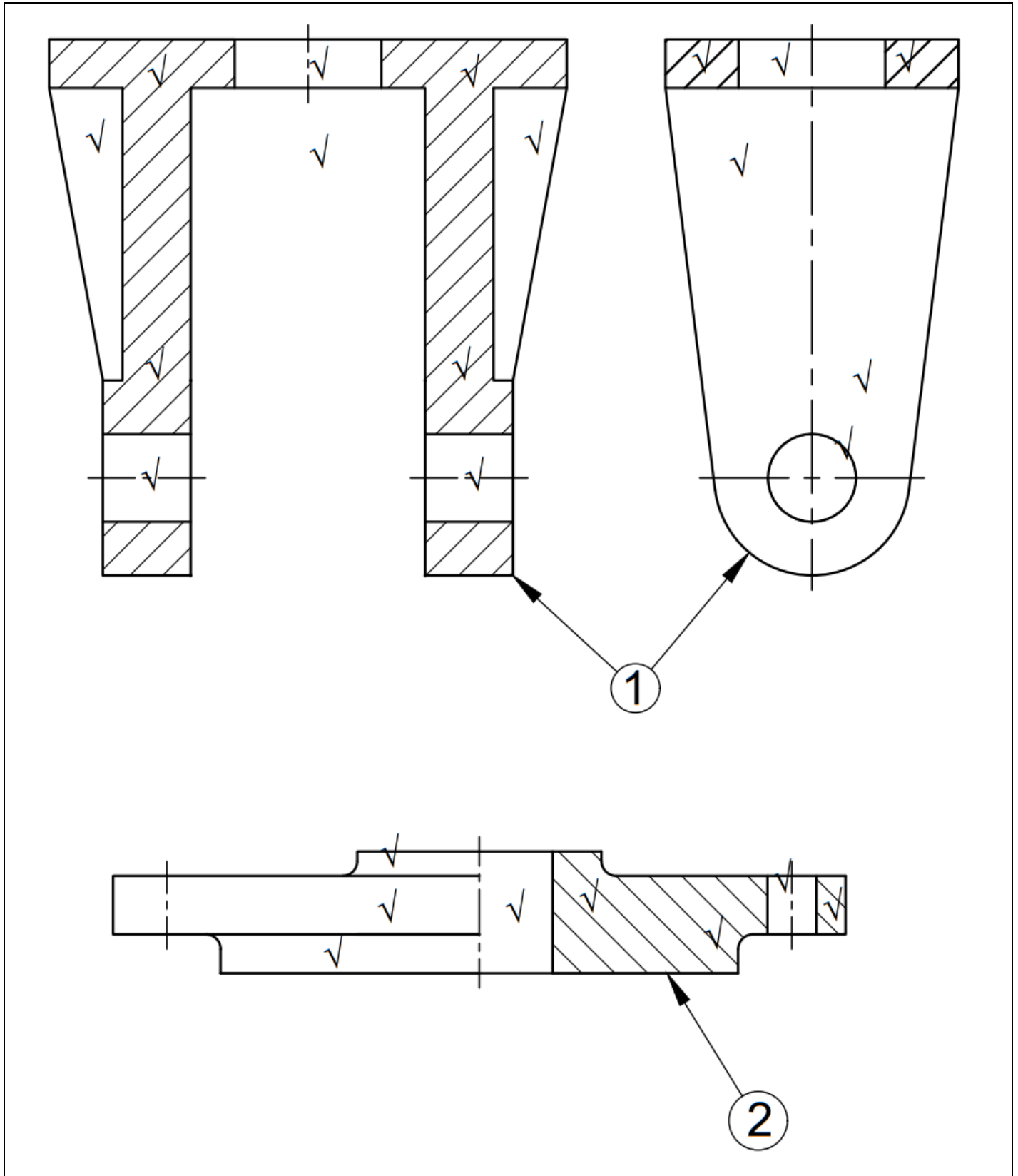
[30]

MARK ALLOCATION	
Correctness	18
Line work	5
Accuracy	5
Layout and neatness	2
TOTAL:	30

MARK ALLOCATION FOR CORRECTNESS – QUESTION 3

1 mark for each item correctly assembled except Item 6	6 marks
½ mark for Item 6 correctly assembled	½ mark
Item 1	
1 mark for correct sectioning	1 mark
½ mark for the slot not sectioned	½ mark
½ mark for the web not sectioned	½ mark
Item 2	
1 mark for correct sectioning	1 mark
½ mark for the Ø24 not sectioned	½ mark
Item 3	
1 mark for correctly sectioning	1 mark
½ mark for the Ø20 blind hole not sectioned	½ mark
½ mark for the Ø14 hole	½ mark
Item 4	
1 mark for correct sectioning	1 mark
Item 5	
1 mark for correct sectioning	1 mark
½ mark for the Ø12 hole not sectioned	½ mark
Item 6	
½ mark for not sectioning the washer	½ mark
Item 7	
1 mark for correctly drawing the bolt head	1 mark
½ mark for not sectioning the bolt	½ mark
½ mark for showing the threads on the bolt	½ mark
1 mark for the 10 mm gap between Item 3 and Item 5	1 mark
TOTAL	18 marks

QUESTION 4: DETAILED DRAWING



[20]

MARK ALLOCATION		
Correctness	FSFV (Item 1)	5
	FSLV (Item 1)	3
	HSFV (Item 2)	4
Line work		3
Accuracy		3
Layout and neatness		2
TOTAL:		20

MARK ALLOCATION FOR CORRECTNESS – QUESTION 4**FSFV (ITEM 1)**

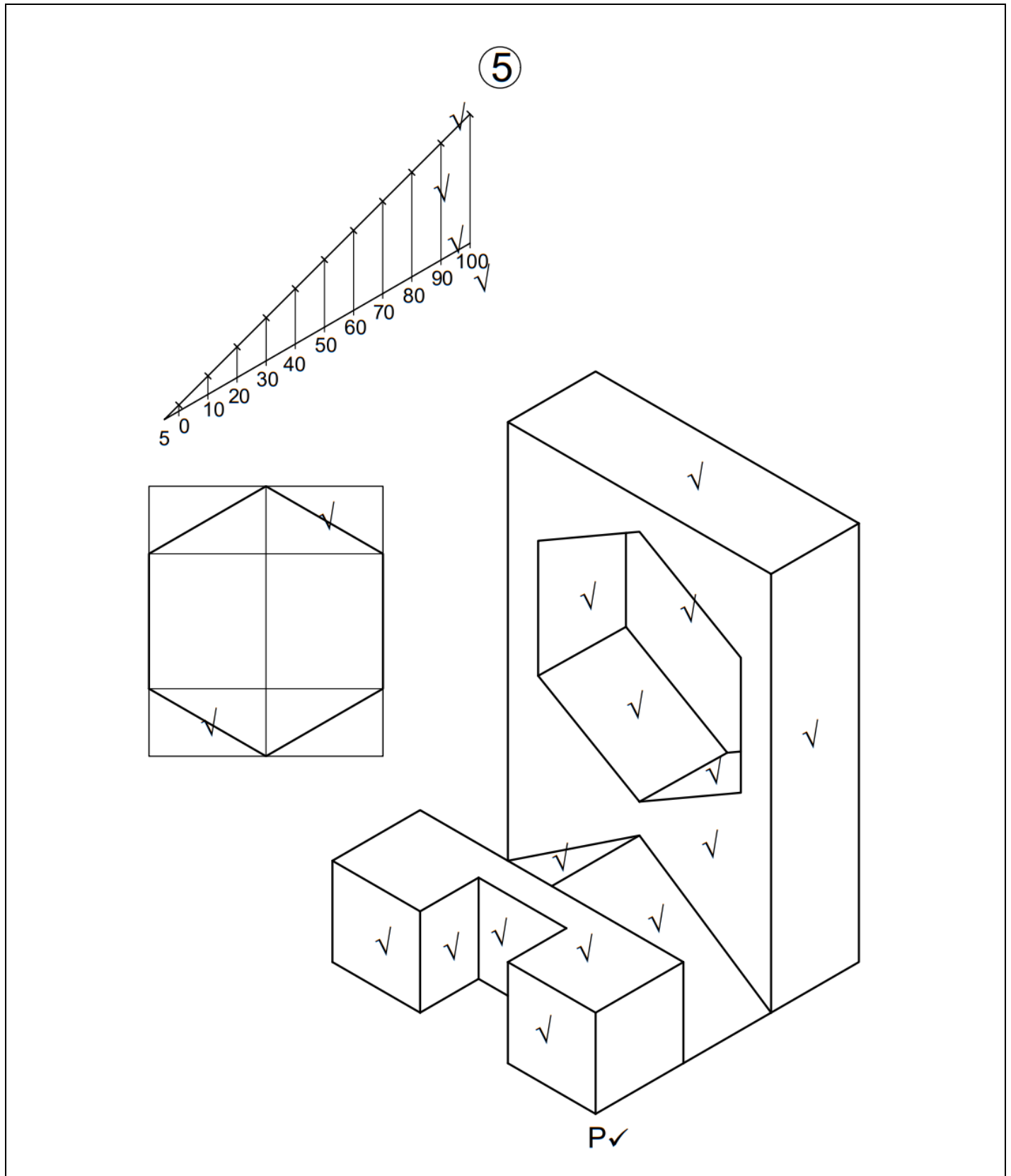
2 marks for the correct sectioning	2 marks
½ mark for the Ø30 hole not sectioned	½ mark
½ mark for each web not sectioned	1 mark
½ mark for each Ø18 hole not sectioned	1 mark
½ mark for the gap in the middle of Item 1	½ mark
TOTAL	5 marks

FSLV (ITEM 1)

1 mark for correct sectioning	1 mark
½ mark for the Ø30 hole not sectioned	½ mark
1 mark for the vertical upright not sectioned	1 mark
½ mark for the Ø18 hole	½ mark
TOTAL	3 marks

HSFV (ITEM 2)

1½ marks for correct sectioning	1½ marks
½ mark for the Ø10 hole not sectioned	½ mark
½ mark for half of the Ø30 hole not sectioned	½ mark
½ mark for each of the different diameters on the left half	1½ marks
TOTAL	4 marks

QUESTION 5: ISOMETRIC PROJECTION**[15]**

MARK ALLOCATION	
Correctness	8
Line work	2
Accuracy	2
Scale	2
Point P	1
TOTAL:	15

MARK ALLOCATION FOR CORRECTNESS – QUESTION 5

$\frac{1}{2}$ mark for each of the areas indicated on the marking guideline **8 marks**

$\frac{1}{2}$

TOTAL: 100