



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

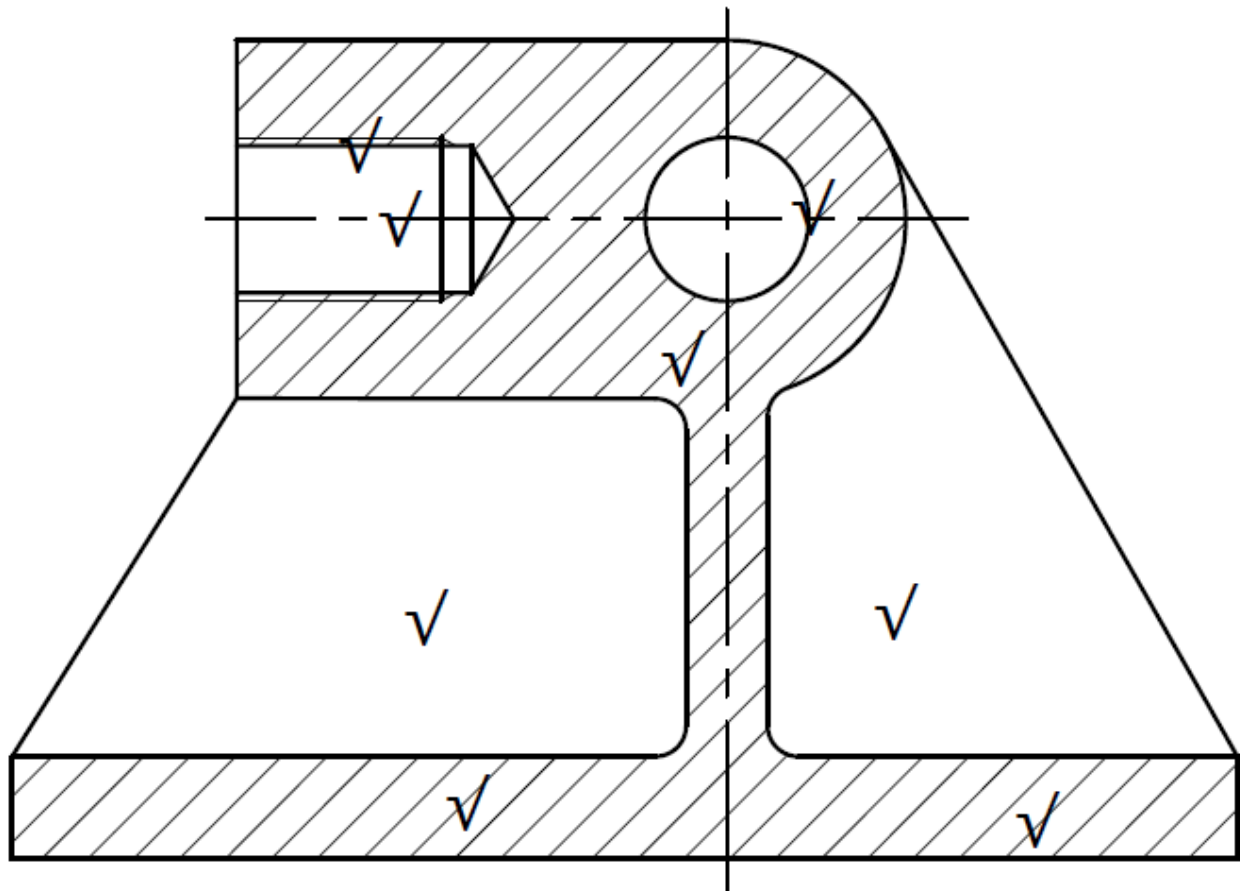
ENGINEERING DRAWING N3

18 November 2020

This marking guideline consists of 11 pages.

INSTRUCTIONS AND INFORMATION

1. Copying and scanning of drawings will affect the accuracy of the drawings on the marking guideline.
2. All markers must prepare their own marking guideline to use during the marking of candidates' drawings.

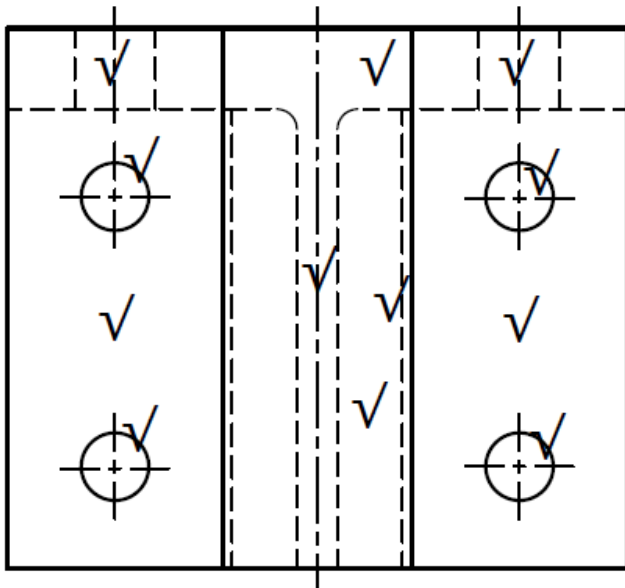
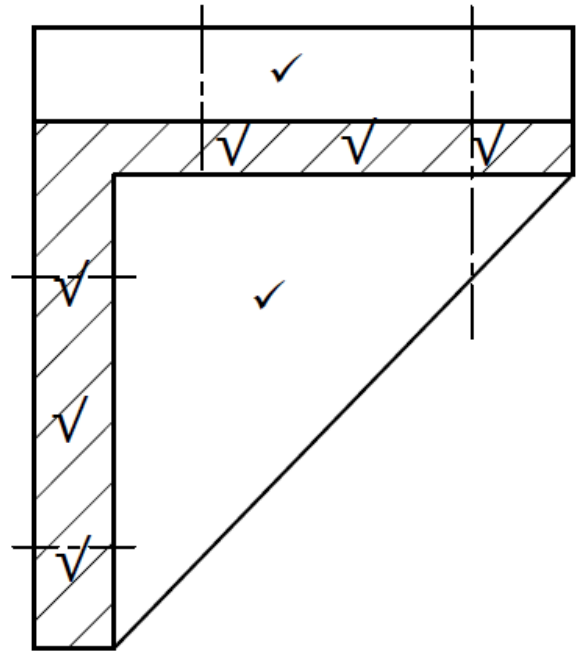
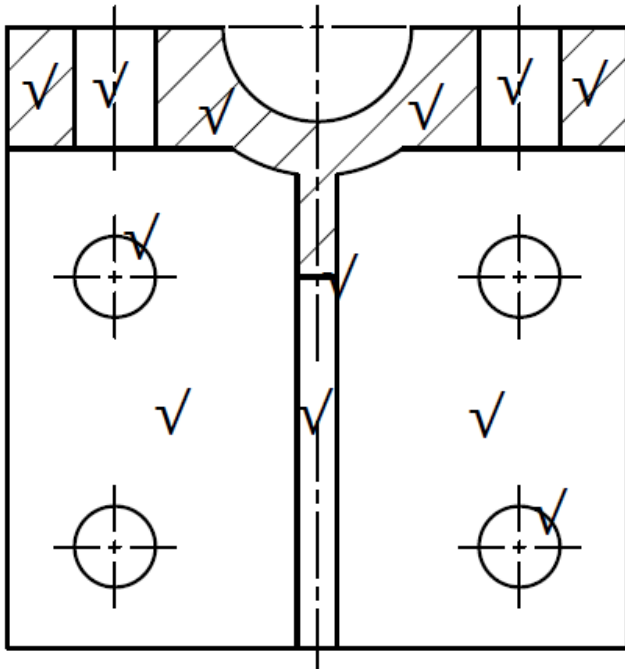
QUESTION 1: FREEHAND DRAWING

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

MARK ALLOCATION FOR CORRECTNESS – QUESTION 1

½ mark for each of the areas indicated on the marking guideline **4 marks**

[10]

QUESTION 2: SECTIONAL DRAWING

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

MARK ALLOCATION FOR CORRECTNESS**FSFV**

2	marks for correct sectioning	2	marks
1	mark for each Ø10 hole not sectioned	1	mark
½	mark for the end of the section line on the web	½	mark
½	mark for the web not sectioned	½	mark
1	mark for the vertical face not sectioned	1	mark
1	mark for the 4 × Ø12 holes	1	mark
TOTAL			6 marks

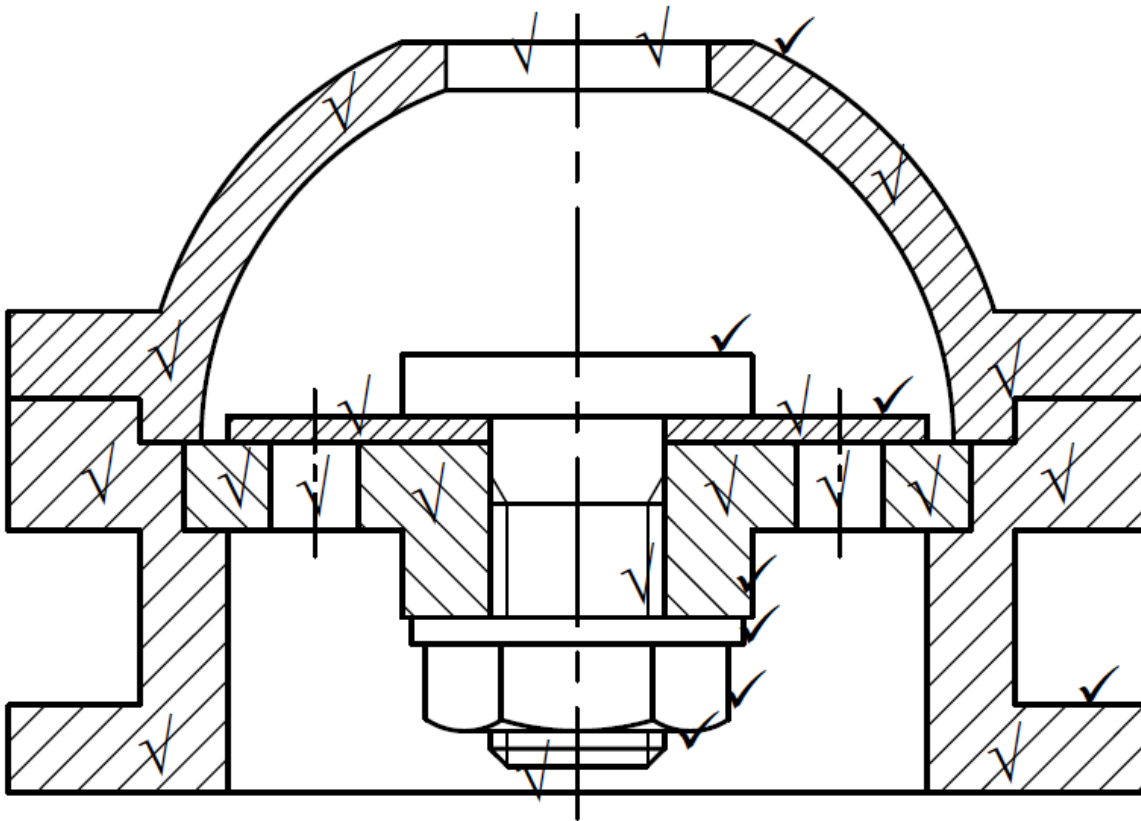
FSLV

3	marks for correct sectioning (deduct ½ for each hole drawn incorrectly)	3	marks
1	mark for the portion of R14 not sectioned	1	mark
1	mark for the web not sectioned	1	mark
TOTAL			5 marks

TV

½	mark for each top surface area not sectioned	1½	marks
½	mark for each Ø10 hole	2	marks
½	mark for each Ø10 hole shown as hidden detail	1	mark
½	mark for showing the web as hidden detail	½	mark
½	mark for the hidden detail showing the underside of the cylinder (R22)	½	mark
½	mark for showing the thickness of the back plate as hidden detail	½	mark
TOTAL			6 marks

[25]

QUESTION 3: ASSEMBLY DRAWING

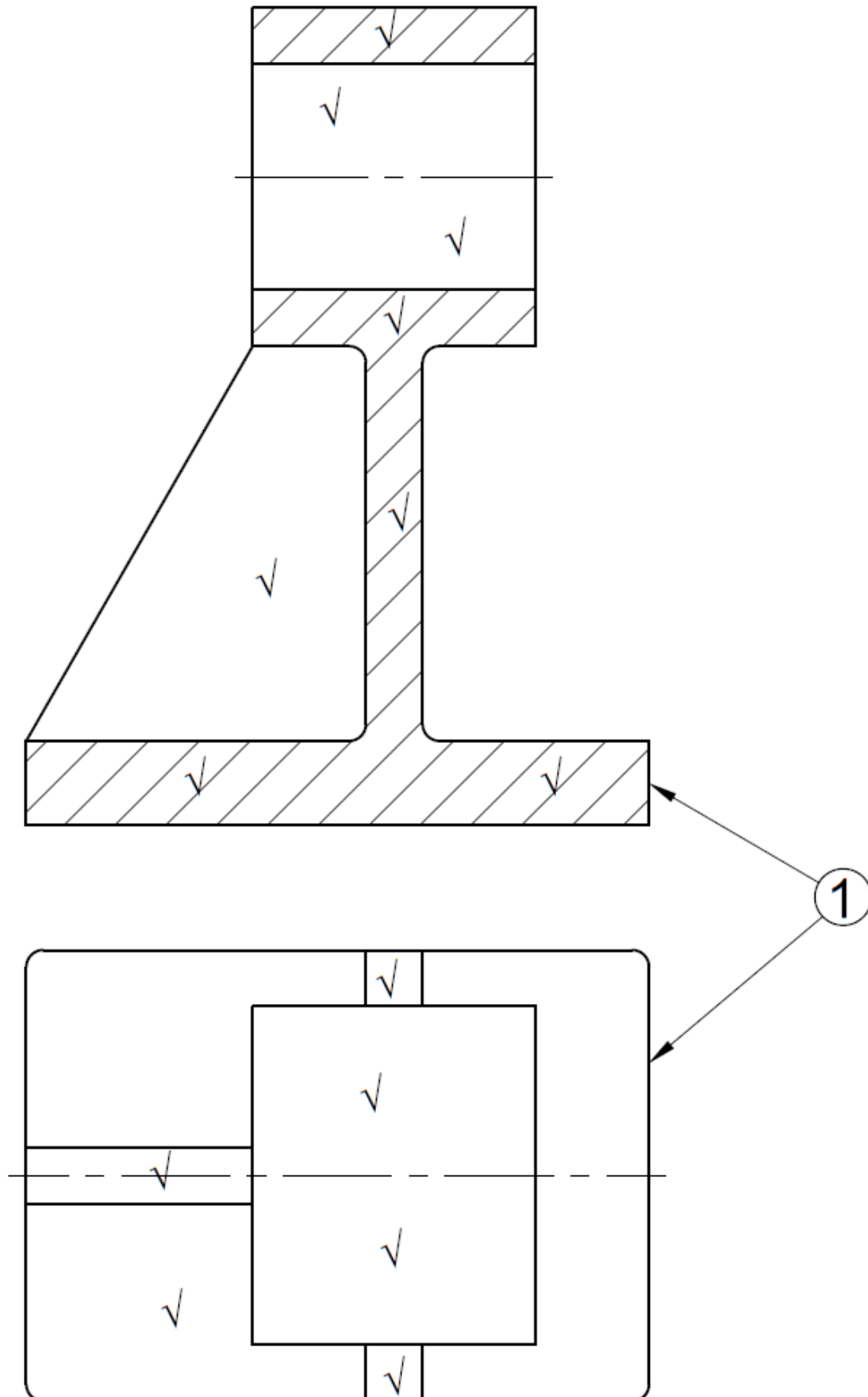
MARK ALLOCATION	
Correctness	18
Line work	5
Accuracy	5
Layout and neatness	2
TOTAL:	30

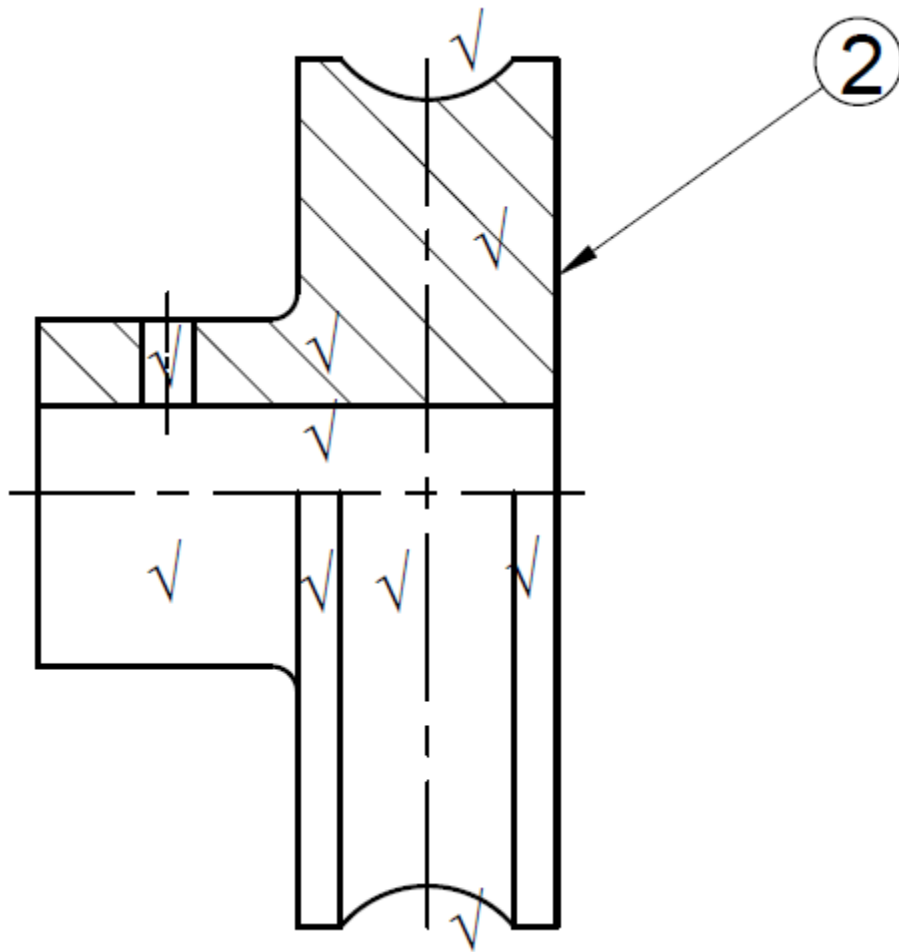
MARK ALLOCATION FOR CORRECTNESS

1	mark for each of the items 1 to 7 correctly assembled	7	marks
Item 1			
2	marks for correct sectioning	2	marks
Item 2			
2	marks for correct sectioning	2	marks
1	mark for the Ø30 hole not sectioned	1	mark
Item 3			
2	marks for correct sectioning	2	marks
½	mark for each Ø10 hole not sectioned	1	mark
Item 4			
1	mark for correct sectioning	1	mark
Item 5			
½	mark for drawing the threaded portion above the M20 nut	½	mark
½	mark for drawing the threaded portion after the M20 nut	½	mark
Item 7			
1	mark for correctly drawing the nut	1	mark
TOTAL		18	marks

[30]

QUESTION 4: DETAILED DRAWING





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

MARK ALLOCATION FOR CORRECTNESS**FSFV (ITEM 1)**

2½	marks for correct sectioning	2½	marks
1	mark for Ø40 hole not sectioned	1	mark
½	mark for the web not sectioned	½	mark
TOTAL		4	marks

TV (ITEM 1)

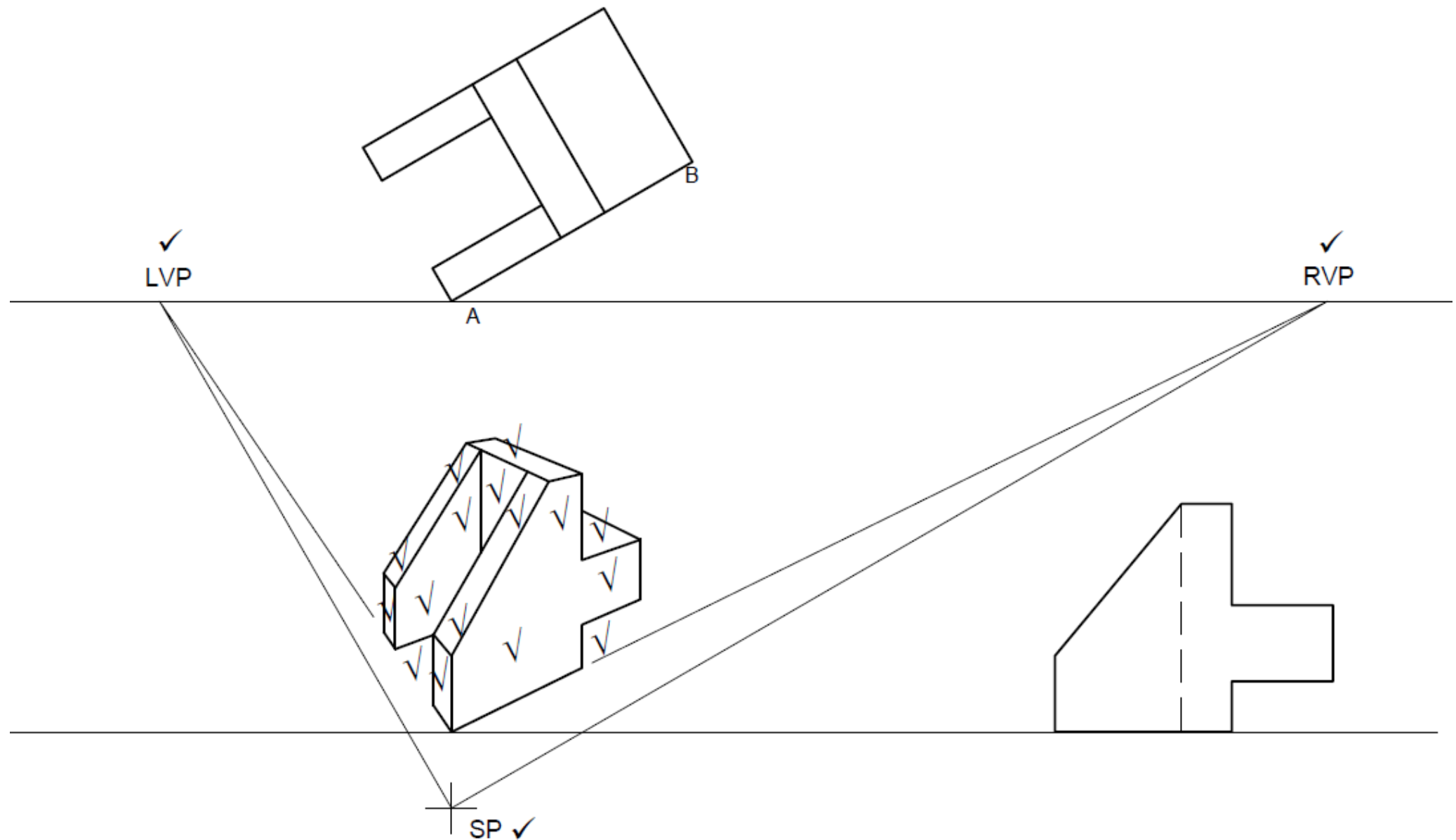
1	mark for the outside view of the cylinder	1	mark
1½	mark for each web	1½	mark
½	mark for the base not sectioned	½	mark
TOTAL		3	marks

HSFV (ITEM 2)

1	mark for correct sectioning	1	mark
½	mark for the Ø6 hole not sectioned	½	mark
½	mark for half of the Ø20 hole not sectioned	½	mark
½	mark for each area at the bottom half not sectioned	2	marks
½	mark for the two curves (top and bottom)	1	mark
TOTAL		5	marks

[20]

QUESTION 5: PERSPECTIVE DRAWING



MARK ALLOCATION	
Correctness	8
Line work	2
Accuracy	2
SP + LVR + RVP	3
TOTAL:	15

MARK ALLOCATION FOR CORRECTNESS

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

[15]

TOTAL: 100