higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

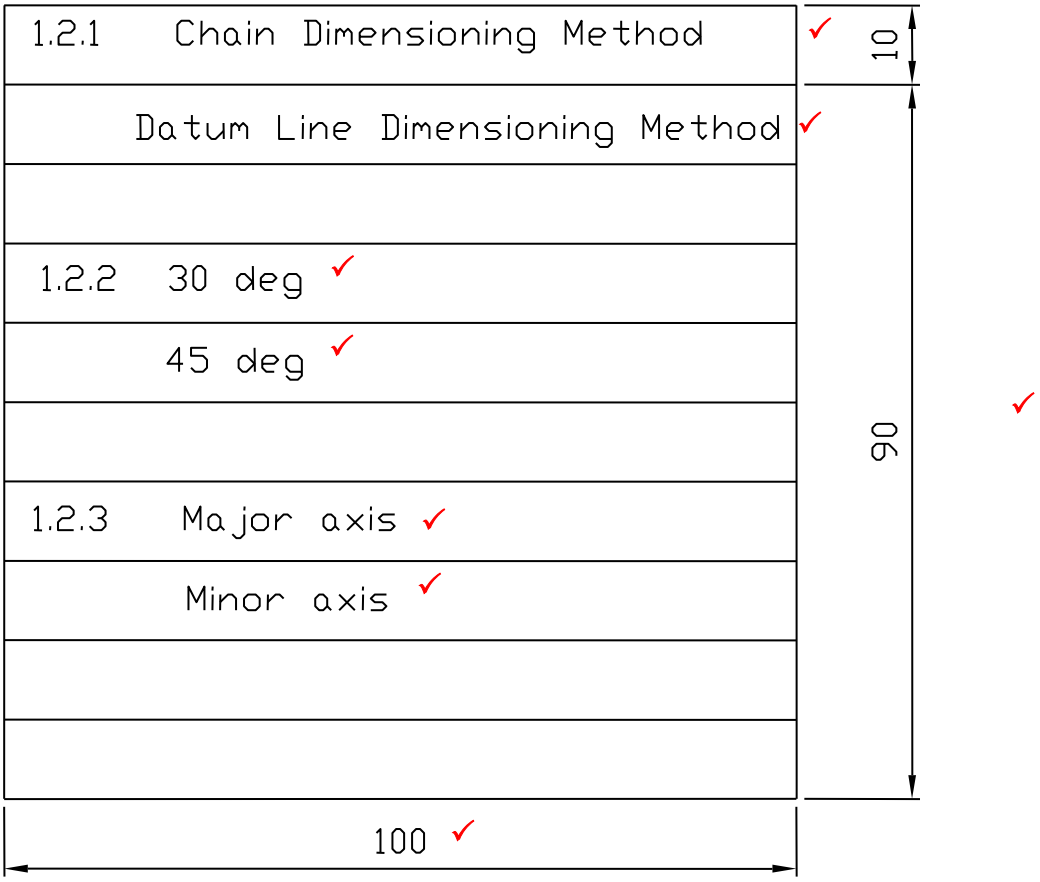
ENGINEERING GRAPHICS AND DESIGN
NQF LEVEL 3
(Second paper)

2 December 2024

This marking guideline consists of 11 pages.

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QUESTION 1



NOTE: Candidates are not required to show dimensions – only in MG for markers to check that dimensions of table have been drawn accurately and for mark allocation.

MARK ALLOCATION FOR CORRECTNESS – QUESTION 1

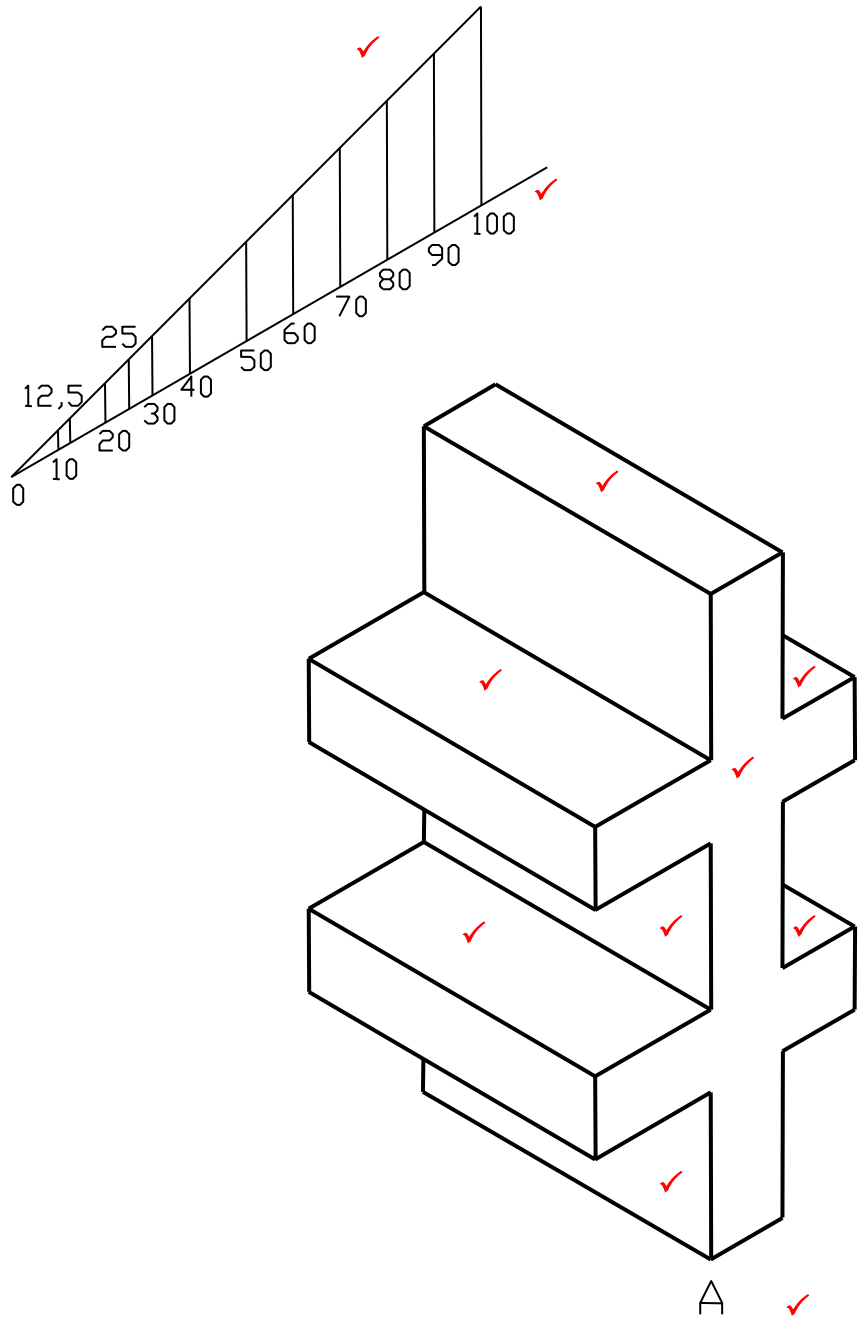
1.1 1 mark for each side, with measurements drawn accurately (dimensions not required in the answer). (2)

1.2 1 mark for correct numbering (1)
1 mark for correct printing of the answers in QUESTIONS 1.2.1–1.2.3 (1)

1.2.1 1 mark per correct answer
1.2.2 1 mark per correct answer
1.2.3 1 mark per correct answer

(3 × 2) (6)
[10]

QUESTION 2



MARK ALLOCATION – QUESTION 2

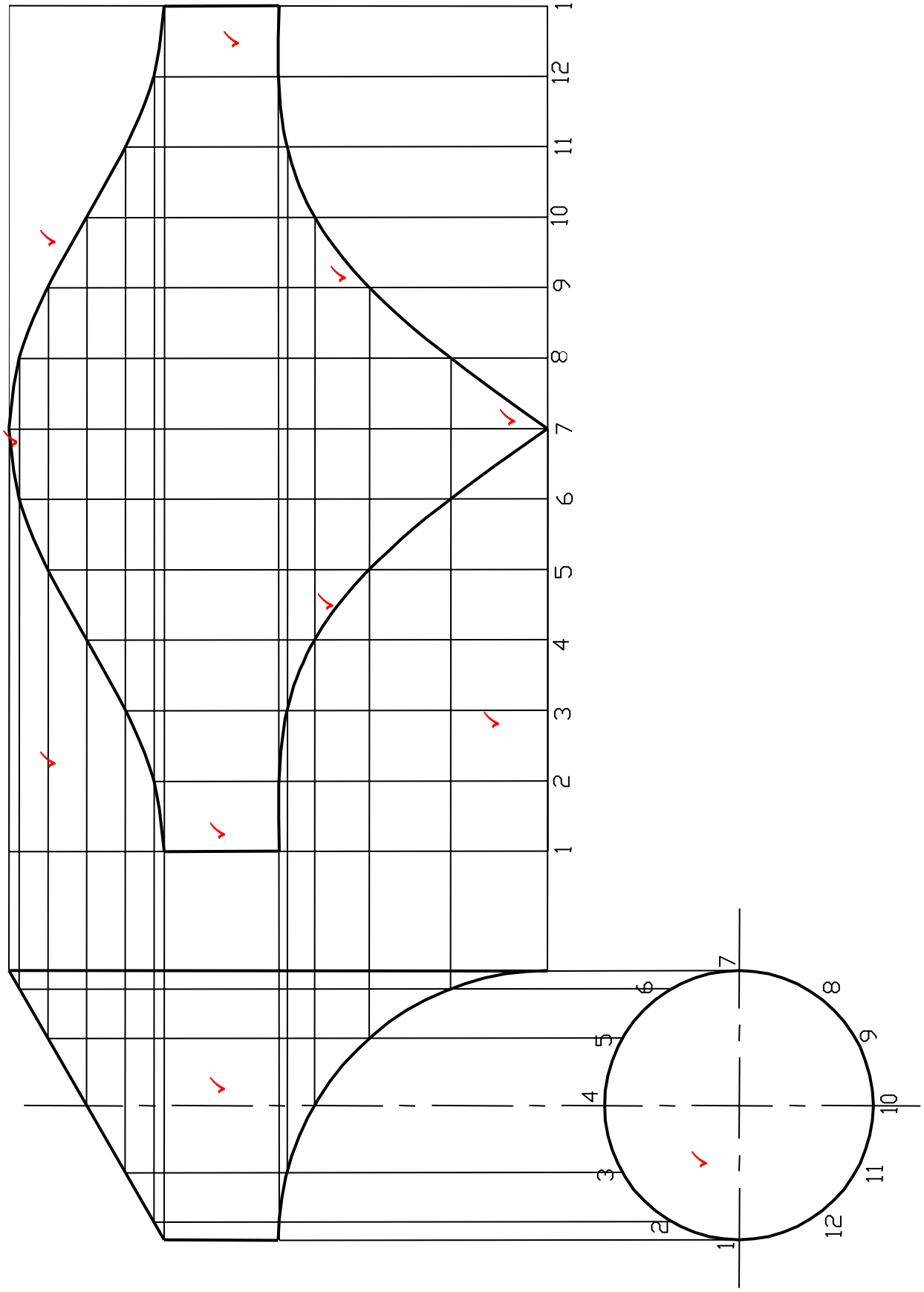
2.1 Construction of isometric scale (2)

2.2 1 mark for Point A (1)
1 mark for each of the areas indicated on the drawing (8)

MARKING CRITERIA	
Isometric scale	2
Correctness	8
Point A	1
Line work	2
Accuracy	1
Layout and neatness	1
TOTAL	**15**

[15]

QUESTION 3



MARK ALLOCATION – QUESTION 3

3.1 Draw the given views using a scale of 1:1. (2)

3.2 Show all construction lines to develop the surface of the pipe. (2)

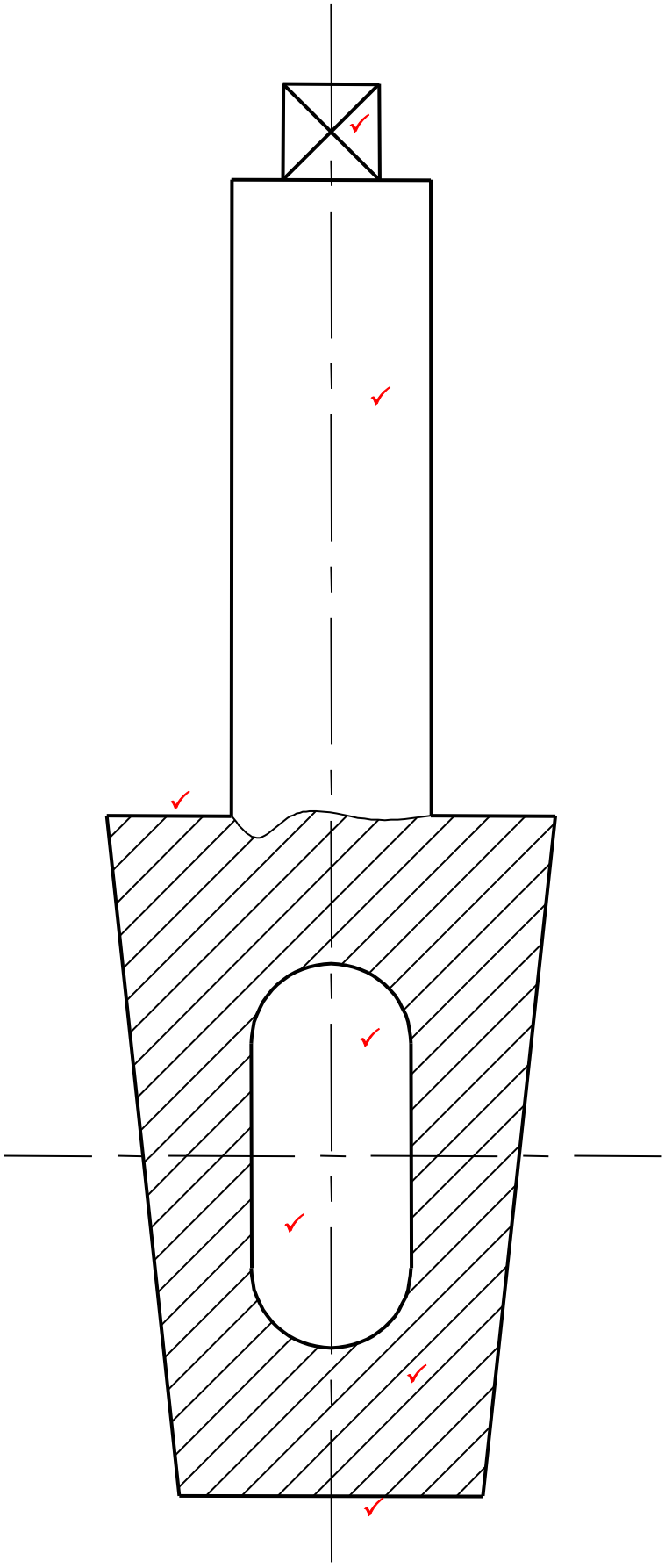
3.3 Develop the surface of the truncated pipe (correctness). (7)

MARKING CRITERIA	
Correctness:	
• Given views	2
• Construction lines (to develop surface of pipe)	2
• Development of pipe	7
Line work	3
Accuracy	2
Layout and neatness	1
TOTAL:	**17**

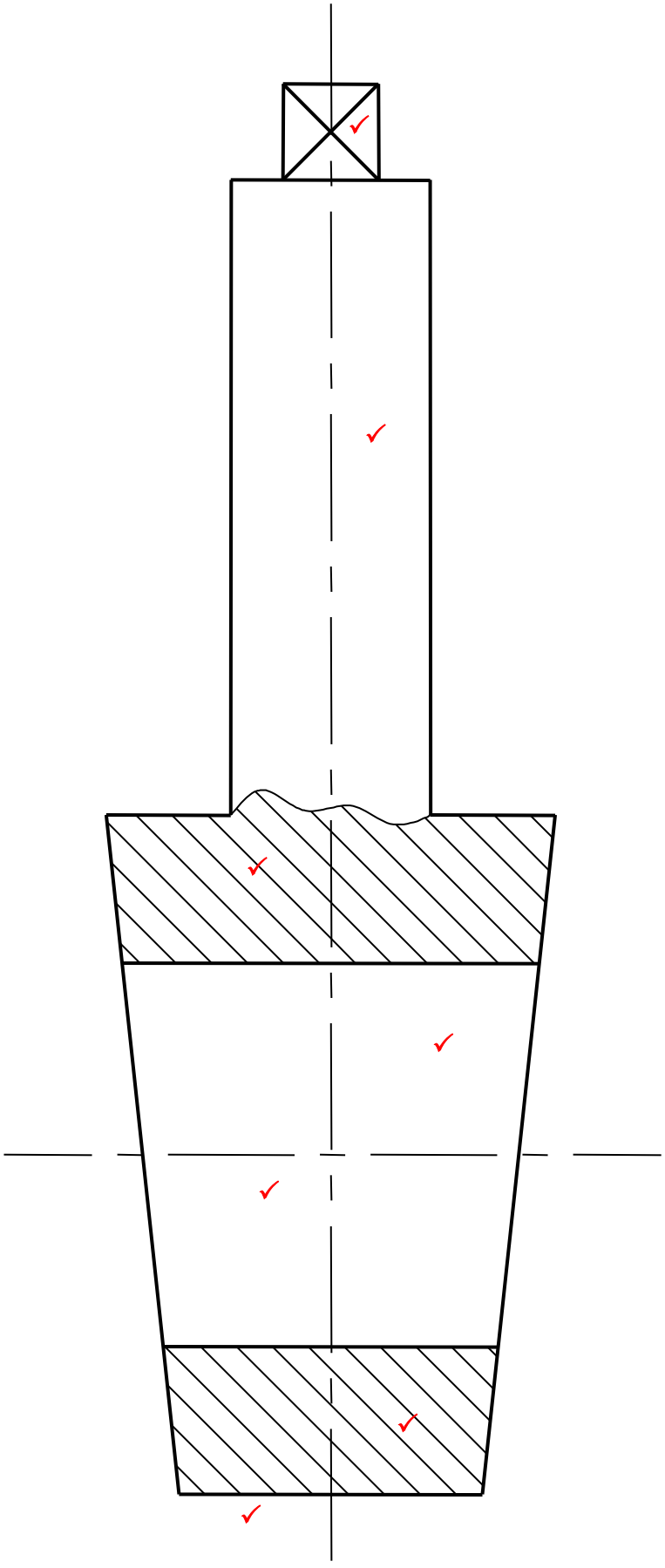
[17]

QUESTION 4

4.1



4.2



MARK ALLOCATION – QUESTION 4

4.1 ITEM 3 FSFV

2 marks for the spool opening and not sectioned	2	marks
1 mark for the square	1	mark
1 mark for the shaft not sectioned	1	mark
1 mark for correct sectioning of spool	1	mark
2 marks for correct shape of triangular spool	2	marks
TOTAL	**7**	**marks**

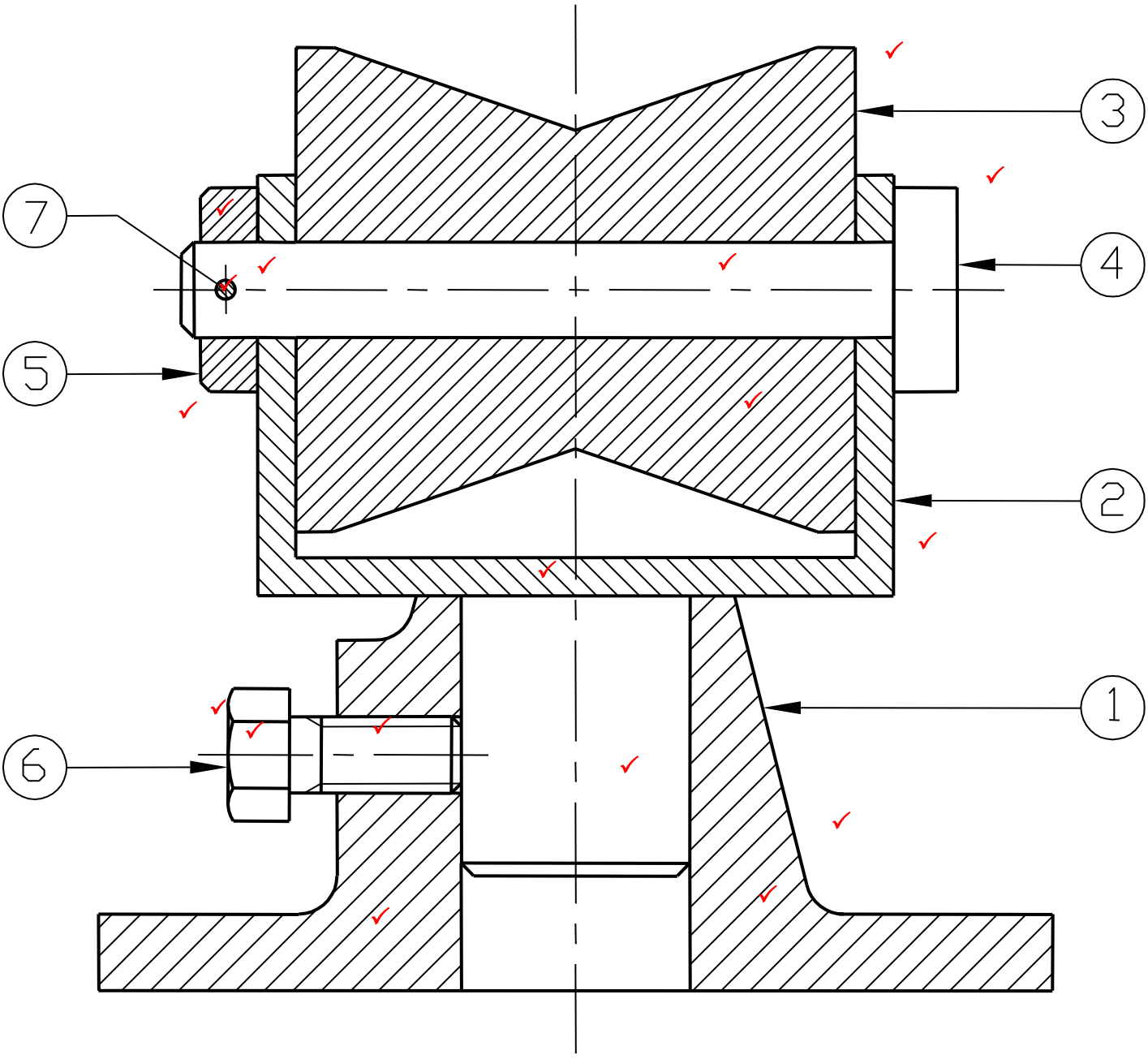
4.2 ITEM 3 FSLV

2 marks for the spool opening and not sectioned	2	marks
1 mark for the square	1	mark
1 mark for the shaft not sectioned	1	mark
2 marks for correct sectioning of spool	2	marks
1 mark for correct shape of triangular spool	1	marks
TOTAL	**7**	**marks**

MARKING CRITERIA	
Correctness:	
Item 3: FSFV	7
Item 3: FSLV	7
Line work	4
Accuracy	4
Layout and neatness	2
TOTAL:	**24**

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QUESTION 5



CABLE ROLLER

SCALE 1:1

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MARK ALLOCATION – QUESTION 5

1 mark for each item correctly assembled		7	marks
Item 1			
2 marks for correct sectioning		2	marks
Item 2			
1 mark for correct sectioning		1	mark
1 mark for not sectioning the shaft		1	mark
Item 3			
1 mark for correct sectioning		1	mark
Item 4			
1 mark for not sectioning		1	mark
Item 5			
1 mark for correct sectioning		1	mark
Item 6			
1 mark for correct construction of bolt head		1	mark
1 mark for correct line detail of shank		1	mark
Item 7			
1 mark for correct sectioning		1	mark
	TOTAL	**17**	**marks**

MARKING CRITERIA	
Correctness	17
Title and scale	2
Item numbers	7
Line work	4
Accuracy	3
Layout and neatness	1
TOTAL	**34**

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TOTAL: 100

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