



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

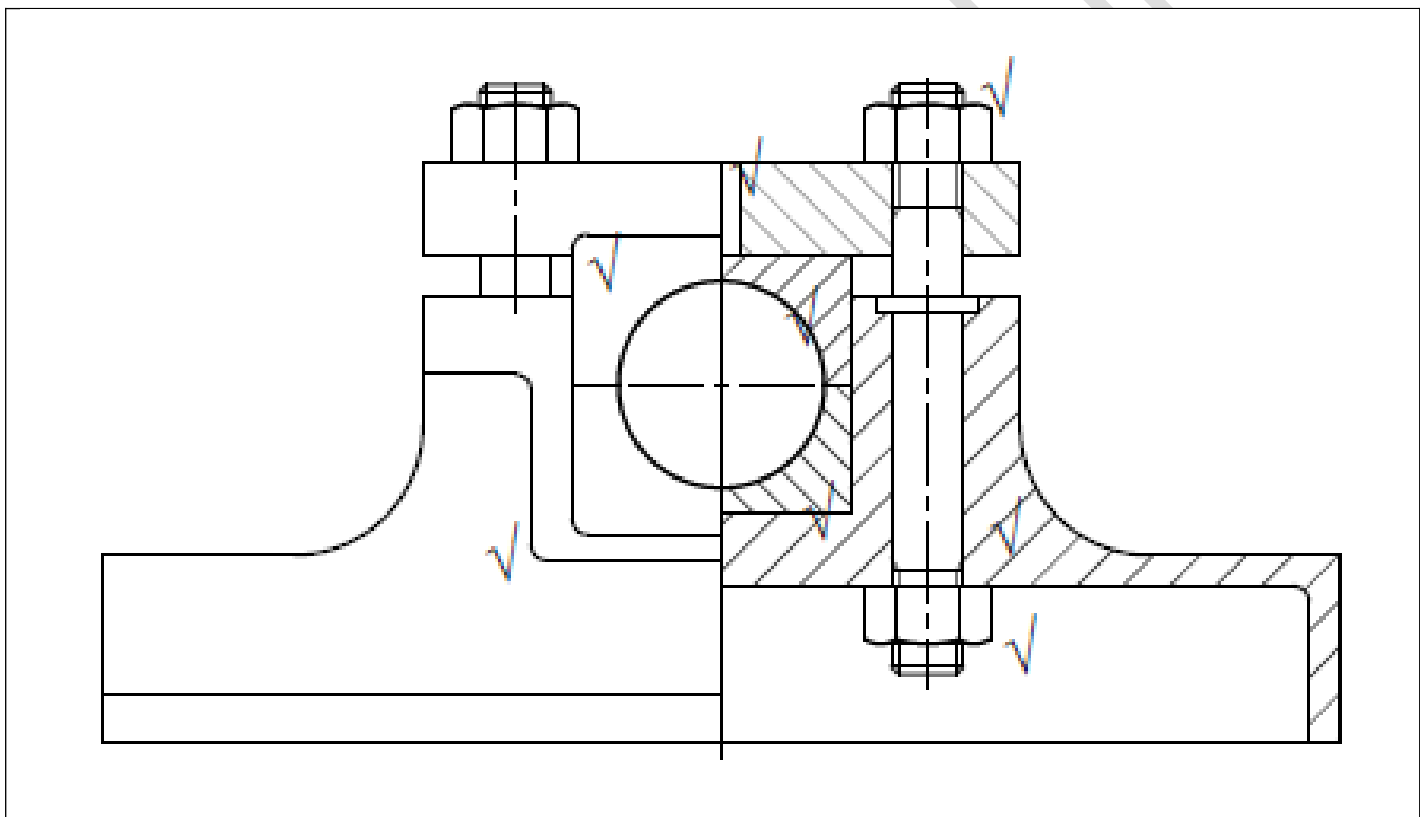
NATIONAL CERTIFICATE ENGINEERING DRAWING N3

11 February 2022

This marking guideline consists of 10 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**[10]**

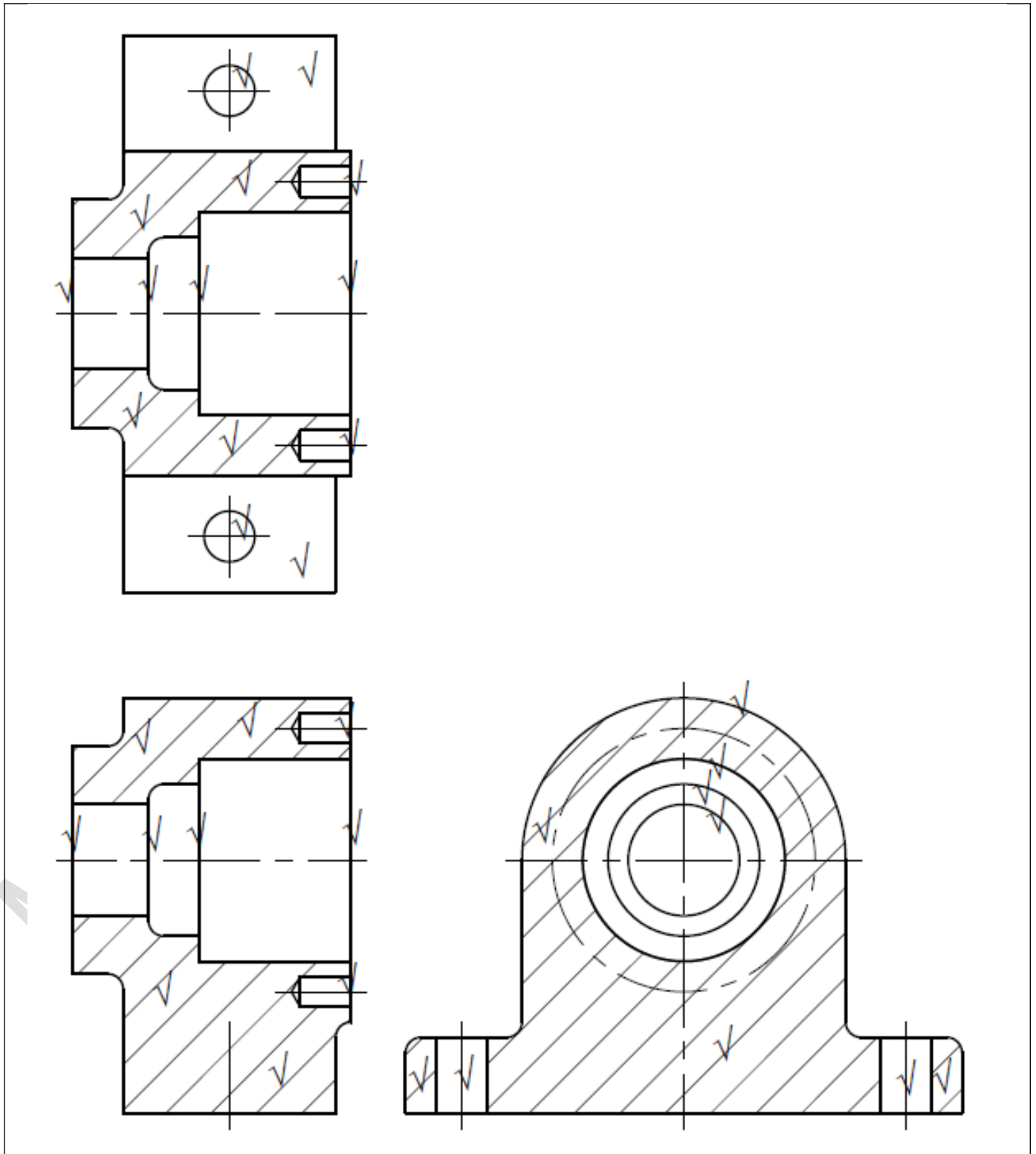
MARK ALLOCATION	
Correctness	4
Line work	3
Accuracy and proportion	3
TOTAL:	[10]

MARK ALLOCATION FOR CORRECTNESS – QUESTION 1

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

4 marks

QUESTION 2: SECTIONAL DRAWING



[25]

MARK ALLOCATION	
Correctness:	
FSFV	5
FSRV	5
FSTV	7
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 |
| $\frac{1}{2}$ mark for each drilled hole not sectioned | 1 mark |
| $\frac{1}{2}$ mark for each line indicating the different diameters | 2 mark |

TOTAL	5 marks
--------------	----------------

FSRV

- | | |
|---|----------------------|
| 2 marks for correct sectioning | 2 marks |
| $\frac{1}{2}$ mark for each $\varnothing 10$ hole not sectioned | 1 mark |
| $\frac{1}{2}$ marks for each of 3 circles drawn | $1\frac{1}{2}$ marks |
| $\frac{1}{2}$ mark for the R32 arc | $\frac{1}{2}$ |

TOTAL	5 marks
--------------	----------------

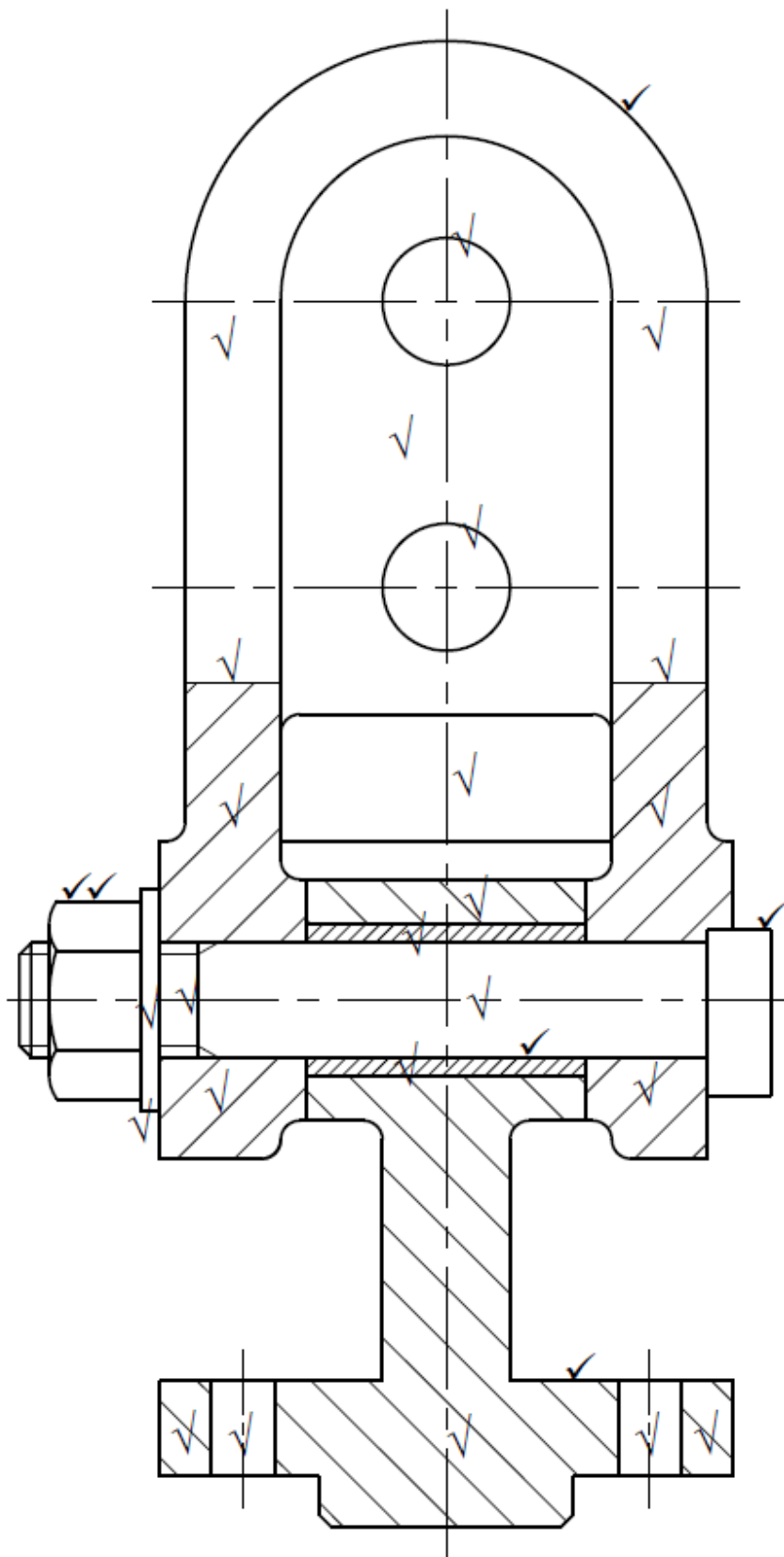
FSTV

- | | |
|---|---------|
| 2 marks for correct sectioning | 2 marks |
| $\frac{1}{2}$ mark for each drilled hole not sectioned | 1 mark |
| $\frac{1}{2}$ mark for each line indicating the different diameters | 2 mark |
| $\frac{1}{2}$ mark for each $\varnothing 10$ hole not sectioned | 1 mark |
| $\frac{1}{2}$ mark for each side of the base not sectioned | 1 mark |

TOTAL	7 marks
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QUESTION 3: ASSEMBLY DRAWING

MARKING GUIDELINE



[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 4 | 5 marks |
| $\frac{1}{2}$ mark for the Item 4 correctly assembled | $\frac{1}{2}$ mark |

Item 1

- | | |
|---|---------|
| 2 marks for correct sectioning | 2 marks |
| $\frac{1}{2}$ mark for each line indicating the cutting plane | 1 mark |
| 1 mark for the U-shape not sectioned | 1 mark |
| $\frac{1}{2}$ mark for each Ø20 hole not sectioned | 1 mark |
| 1 mark for the base not sectioned | 1 mark |

Item 2

- | | |
|--|---------|
| 2 marks for correct sectioning | 2 marks |
| $\frac{1}{2}$ mark for each Ø10 hole not sectioned | 1 mark |

Item 3

- | | |
|-------------------------------|---------|
| 1 mark for correct sectioning | 1 marks |
|-------------------------------|---------|

Item 4

- | | |
|--|--------------------|
| $\frac{1}{2}$ mark for not sectioning the washer | $\frac{1}{2}$ mark |
|--|--------------------|

Item 5

- | | |
|---|--------------------|
| $\frac{1}{2}$ mark for not sectioning the bolt | $\frac{1}{2}$ mark |
| $\frac{1}{2}$ mark for drawing the threaded portion | $\frac{1}{2}$ mark |

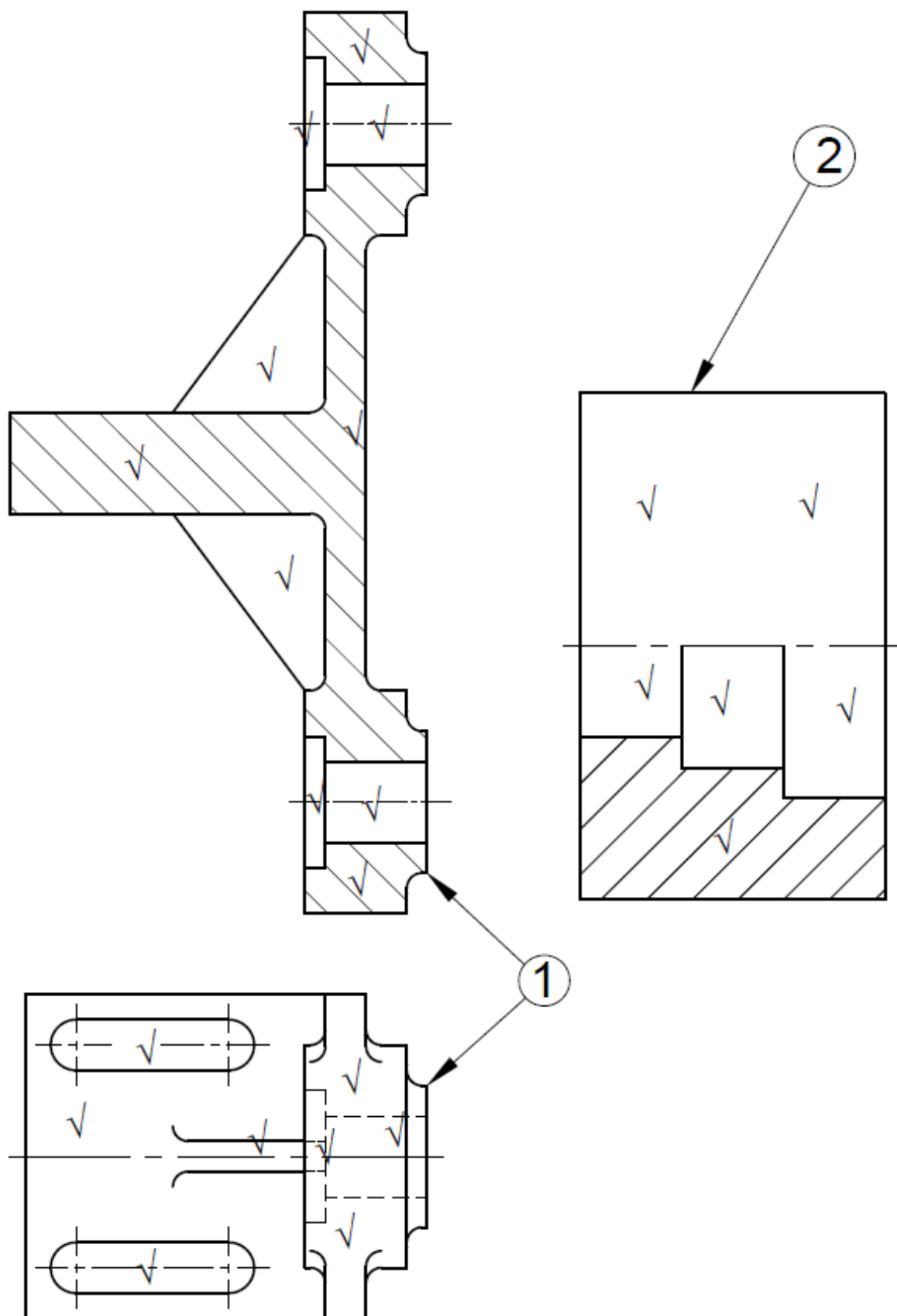
Item 6

- | | |
|--------------------------------------|--------|
| 1 mark for correctly drawing the nut | 1 mark |
|--------------------------------------|--------|

TOTAL

18 marks

QUESTION 4: DETAILED DRAWING



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

[20]

MARK ALLOCATION FOR CORRECTNESS – QUESTION 4

FSFV (ITEM 1)

- 2 marks for correct sectioning
- $\frac{1}{2}$ mark for each $\varnothing 16$ hole not sectioned
- $\frac{1}{2}$ mark for each countersunk hole
- $\frac{1}{2}$ mark for the web not sectioned

- 2 marks
- 1 mark
- 1 mark
- 1 mark

TOTAL 5 marks

TV (ITEM 1)

- 1 mark for the cylindrical portion
- $\frac{1}{2}$ mark for each slot
- $\frac{1}{2}$ mark for the web
- $\frac{1}{2}$ mark for the base
- 1 mark for the hidden detail

- 1 mark
- 1 mark
- $\frac{1}{2}$ mark
- $\frac{1}{2}$ mark
- 1 mark

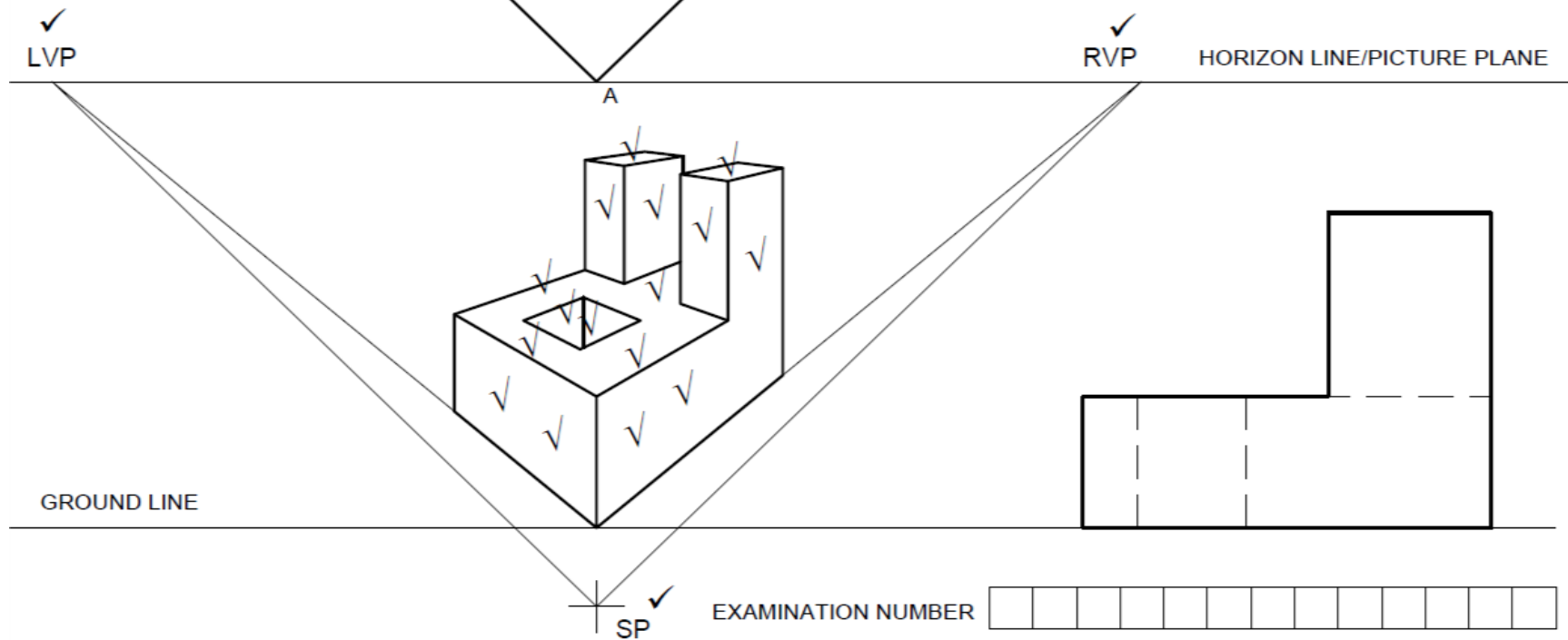
TOTAL 4 marks

FSFV (ITEM 1)

- $\frac{1}{2}$ marks for correct sectioning
- $\frac{1}{2}$ mark for each different diameter not sectioned
- 1 mark for top half not sectioned

- $\frac{1}{2}$ mark
- $1\frac{1}{2}$ marks
- 1 mark

TOTAL 3 marks



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

MARK ALLOCATION FOR CORRECTNESS – QUESTION 5

½ mark for each of the areas indicated in the marking guideline **8 marks**

TOTAL: 100