



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

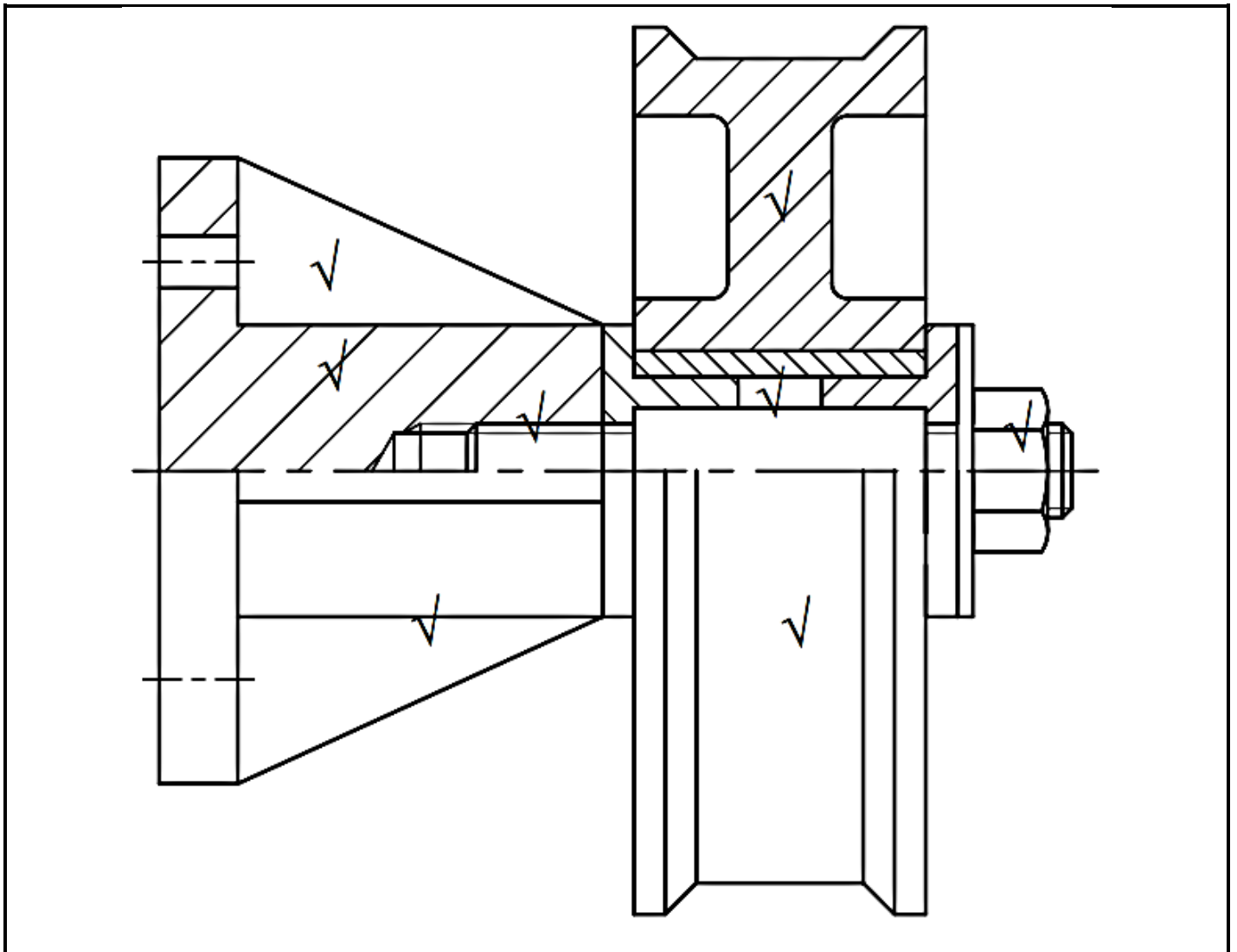
ENGINEERING DRAWING N3

1 December 2023

This marking guideline consists of 10 pages.

INSTRUCTIONS AND INFORMATION

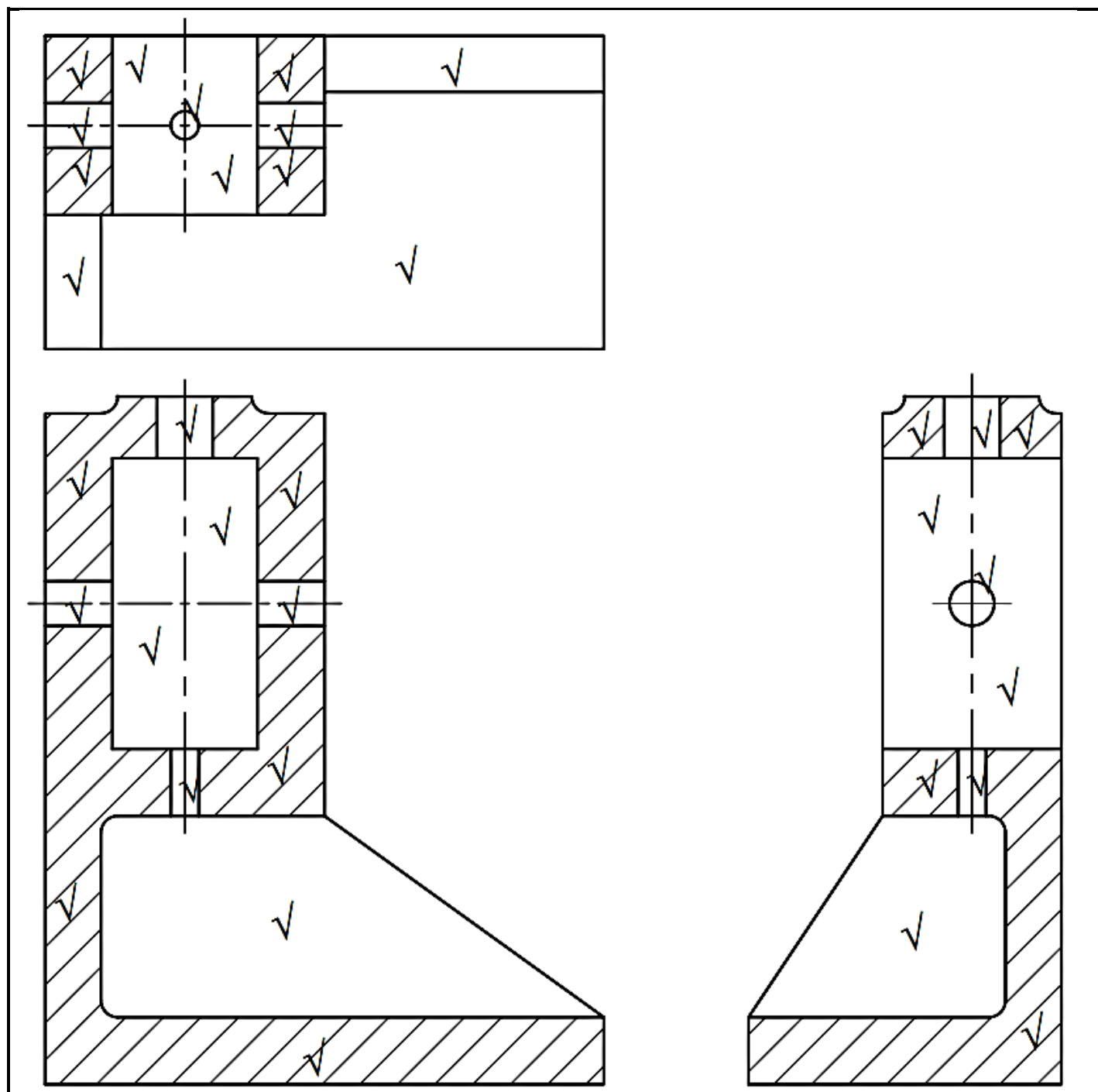
1. Copying and scanning of drawings will affect the accuracy of the drawings on the marking guideline.
2. All markers must prepare their own marking guideline to use during the marking of candidates' drawings.

QUESTION 1: FREEHAND DRAWING

MARK ALLOCATION	
Correctness: ½ mark for each of the areas indicated in the marking guideline	4
Line work	3
Accuracy and proportion	3

[10]

QUESTION 2: SECTIONAL DRAWING



MARK ALLOCATION FOR CORRECTNESS**FSFV**

- 2½ marks for correct sectioning
 1 mark for the rectangular hole not sectioned
 ½ mark for the Ø10 hole not sectioned
 ½ mark for the Ø5 hole not sectioned
 ½ mark for each Ø8 hole not sectioned
 ½ mark for the web not sectioned

- 2½ marks
 1 mark
 ½ mark
 ½ mark
 1 mark
 ½ mark

TOTAL

6 marks

FSRV

- 2 marks for correct sectioning
 1 mark for the rectangular hole not sectioned
 ½ mark for the Ø10 hole not sectioned
 ½ mark for the Ø5 hole not sectioned
 ½ mark for the Ø8 hole
 ½ mark for the web not sectioned

- 2 marks
 1 mark
 ½ mark
 ½ mark
 ½ mark
 ½ mark

TOTAL

5 marks

FSTV

- 2 marks for correct sectioning
 1 mark for the rectangular hole not sectioned
 ½ mark for each Ø8 hole not sectioned
 ½ mark for the Ø5 hole
 ½ mark for the each web not sectioned
 ½ mark for the base not sectioned

- 2 marks
 1 mark
 1 mark
 ½ mark
 1 mark
 ½ mark

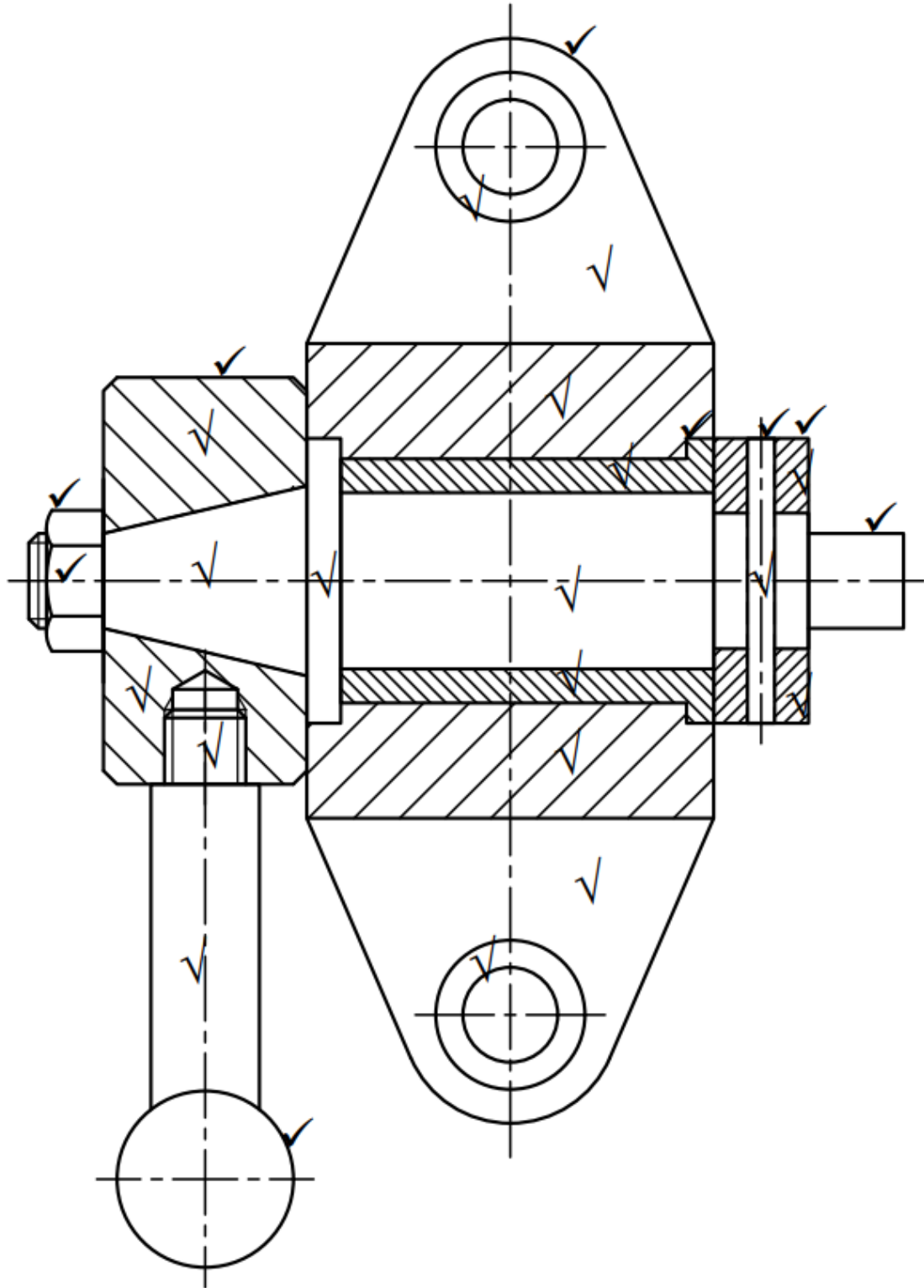
TOTAL

6 marks

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

[25]

QUESTION 3: ASSEMBLY DRAWING



MARK ALLOCATION FOR CORRECTNESS

1 mark for each of item correctly assembled	8 marks
Item 1	
1 mark for correct sectioning	1 mark
$\frac{1}{2}$ mark for each set of concentric circles	1 mark
$\frac{1}{2}$ mark for each portion of the housing not sectioned	1 mark
Item 2	
1 mark for correct sectioning	1 mark
Item 3	
1 mark for correct sectioning	1 mark
Item 4	
1 mark for correct sectioning	1 mark
Item 5	
$\frac{1}{2}$ mark for the tapered part not sectioned	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for collar not sectioned	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for remainder of the shaft not sectioned	$\frac{1}{2}$ mark
Item 6	
$\frac{1}{2}$ mark for not sectioning the lever	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for the threaded portion	$\frac{1}{2}$ mark
Item 7	
$\frac{1}{2}$ mark for not sectioning the pin	$\frac{1}{2}$ mark
Item 9	
1 mark for correctly drawing the nut	1 mark

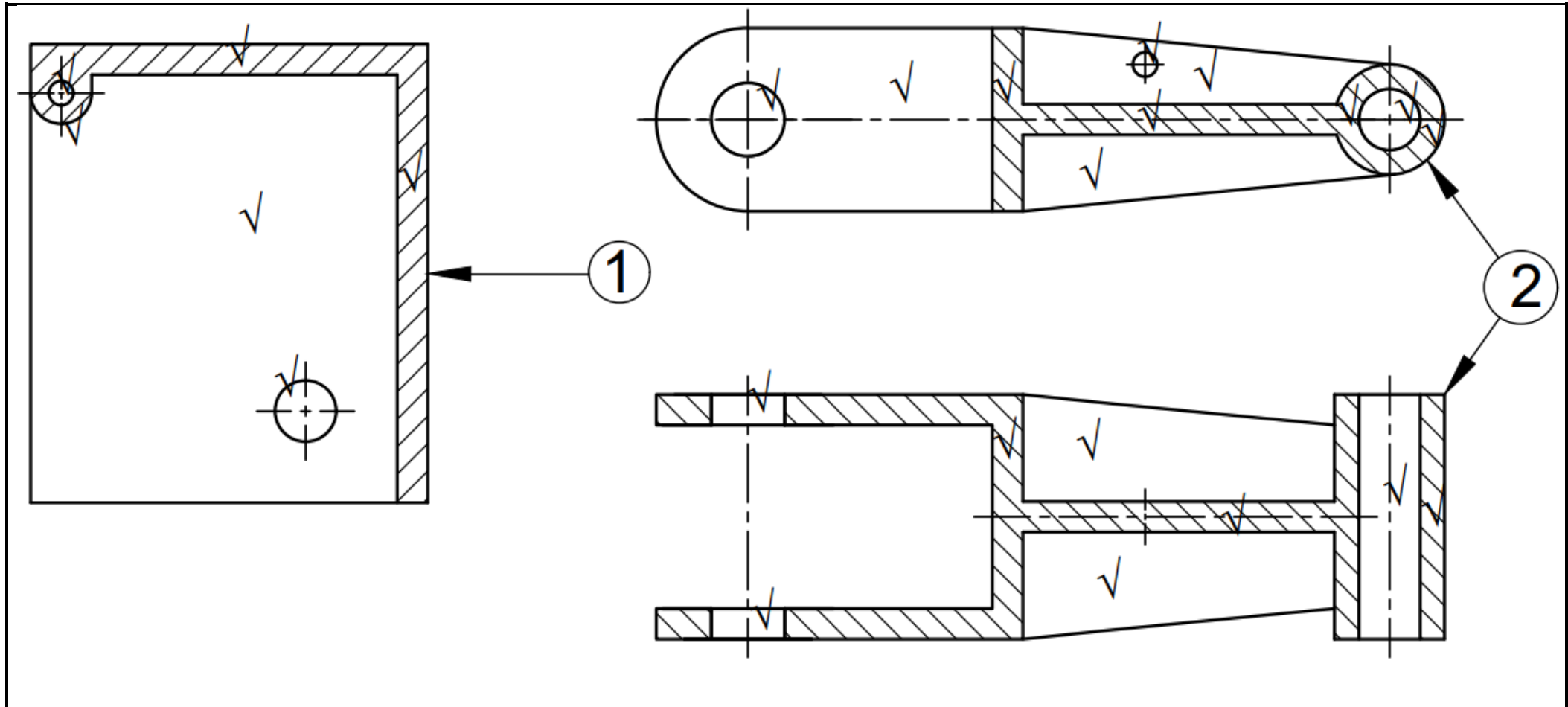
TOTAL

18 marks

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

[30]

QUESTION 4: DETAILED DRAWING



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

1 mark for correct sectioning	1 mark
$\frac{1}{2}$ mark for the R5	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for the Ø4 hole	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for the upright at the back not sectioned	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for the Ø10 hole	$\frac{1}{2}$ mark

TOTAL

3 marks

FSFV (ITEM 2)

2 marks for correct sectioning	2 marks
$\frac{1}{2}$ mark for the Ø12 hole	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for the vertical part of the fork not sectioned	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for each web not sectioned	1 mark
$\frac{1}{2}$ mark for the Ø4 hole	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for the Ø10 hole	$\frac{1}{2}$ mark

TOTAL

5 marks

FSTV (ITEM 2)

$1\frac{1}{2}$ mark for correct sectioning	$1\frac{1}{2}$ mark
$\frac{1}{2}$ mark for each Ø12 hole not sectioned	1 mark
$\frac{1}{2}$ mark for the Ø10 hole not sectioned	$\frac{1}{2}$ mark
$\frac{1}{2}$ mark for each web	1 mark

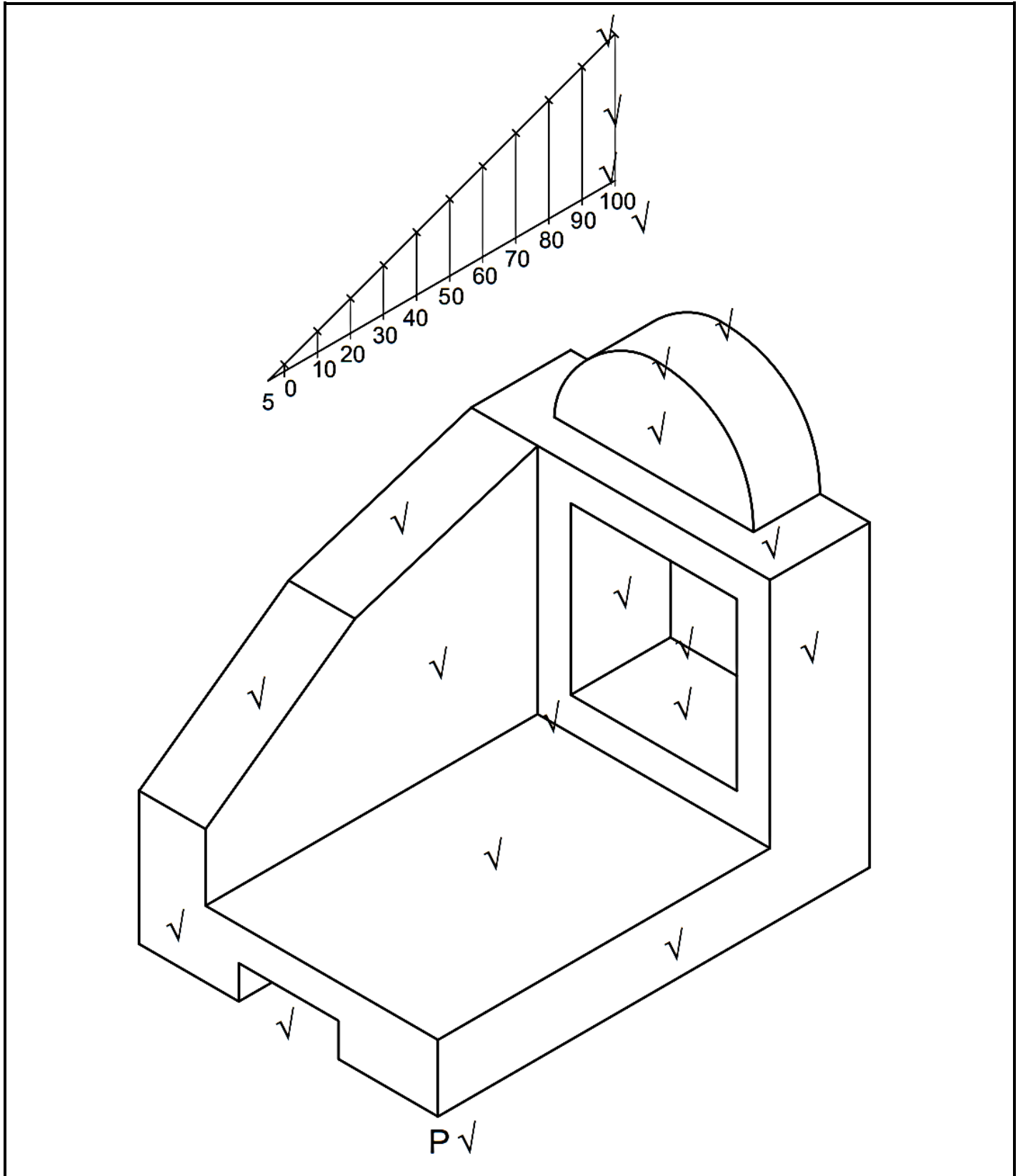
TOTAL

4 marks

MARK ALLOCATION	
Correctness:	
FSFV (Item 1)	3
FSFV (Item 2)	5
FSTV (Item 2)	4
Line work	3
Accuracy	3
Layout and neatness	2

[20]

QUESTION 5: ISOMETRIC PROJECTION



MARK ALLOCATION	
Correctness: ½ mark for each of the areas indicated on the marking guideline	8
Line work	2
Accuracy	2
Scale	2
Point P	1

[15]**TOTAL: 100**