higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

DRAWING OFFICE PROCEDURES AND TECHNIQUES

(Second Paper)

NQF LEVEL 2

(12050702)

27 November 2019 (Y-Paper)
13:00–16:00

REQUIREMENTS: A4 drawing sheets

This question paper consists of 5 pages and 2 diagram sheets.

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TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Read ALL the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Plot each drawing on ONE side of separate A4 DRAWING SHEETS using CAD software.
5. Draw a border line around each DRAWING SHEET.
6. Plot ALL candidate information in the title blocks.
7. ALL abbreviations and symbols must comply with the latest National Building Regulations and ALL relevant SANS (SABS) codes.
8. Candidates will be responsible for printing/plotting their own drawings under supervision.
9. Maintain a balanced layout – candidates will be penalised for poor planning.
10. Work neatly.

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QUESTION 1

1.1 Draw the design shown in FIGURE 1 using your own dimensions. Include a title bar, date, STUDENT NUMBER, CENTRE NUMBER and QUESTION NUMBER.

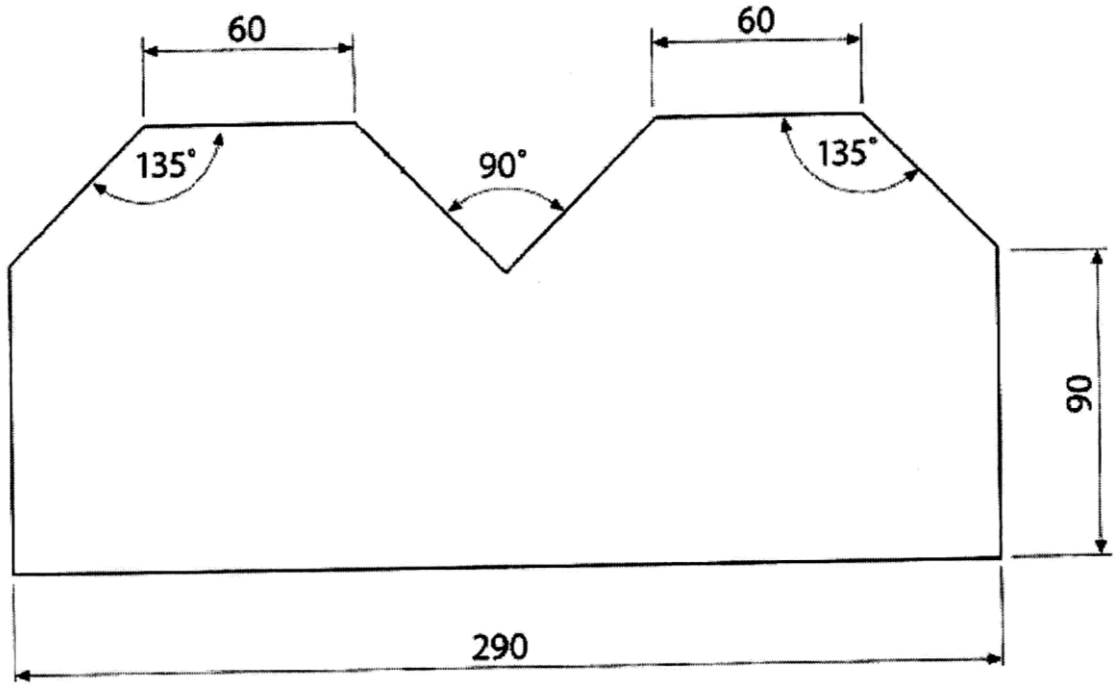


FIGURE 1 (5)

1.2 Draw the shape shown in FIGURE 2. Include a title bar, scale, date, STUDENT NUMBER, CENTRE NUMBER and QUESTION NUMBER.

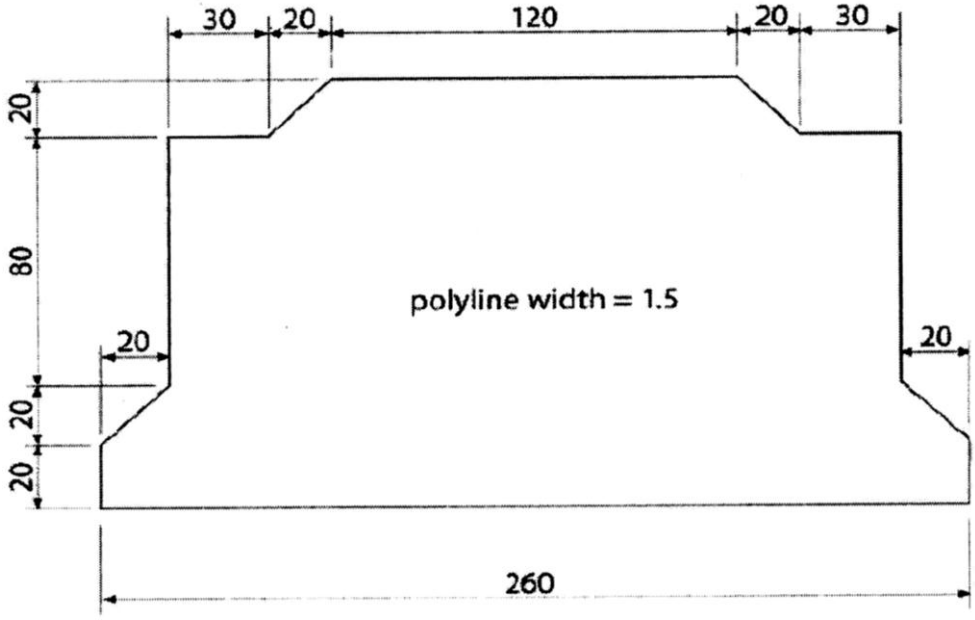


FIGURE 2 (3)

1.3 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (1.3.1–1.3.2) in the ANSWER BOOK.

1.3.1 Most CAD programs allow one drawing to be inserted into another drawing.

1.3.2 Symbols must be drawn in CAD every time it is needed.

(2 × 1) (2)
[10]

QUESTION 2

FIGURE 3, DIAGRAM SHEET 1 (attached), shows a component.

2.1 Draw, to scale 2:1, the component. (20)

2.2 Include ALL dimensions on the drawing. (4)

2.3 Show a title bar. (3)

2.4 Print the scale, date, STUDENT NUMBER, CENTRE NUMBER and QUESTION NUMBER in the title bar. (3)
[30]

QUESTION 3

FIGURE 4, DIAGRAM SHEET 1 (attached), shows a bearing holder.

3.1 Draw, to scale 1:2, the TWO given views of the bearing holder. (15)

3.2 Include ALL dimensions on the drawing. (5)

3.3 Show a title bar. (4)

3.4 Print the scale, date, STUDENT NUMBER, CENTRE NUMBER and QUESTION NUMBER in the title bar. (4)

3.5 Insert the correct orthographic-projection symbol. (2)
[30]

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QUESTION 4

FIGURE 5, DIAGRAM SHEET 2 (attached), shows an isometric view of a drilling jig. ALL hidden lines are included.

Draw, to scale 1:1, the following views of the drilling jig in third-angle orthographic projection (including ALL hidden lines and dimensions):

4.1	The front view	(6)
4.2	The left view	(6)
4.3	The top view	(6)
4.4	Include a title bar, scale, date, STUDENT NUMBER, CENTRE NUMBER and QUESTION NUMBER.	(3)
4.5	Plot the drawing and candidate information on an A4 DRAWING SHEET.	(3)
4.6	Insert the correct orthographic-projection symbol.	(2)
4.7	Construct the isometric drawing shown in FIGURE 5, DIAGRAM SHEET 2 (attached), by using the given dimensions.	(4)
		[30]

TOTAL: 100

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DIAGRAM SHEET 1

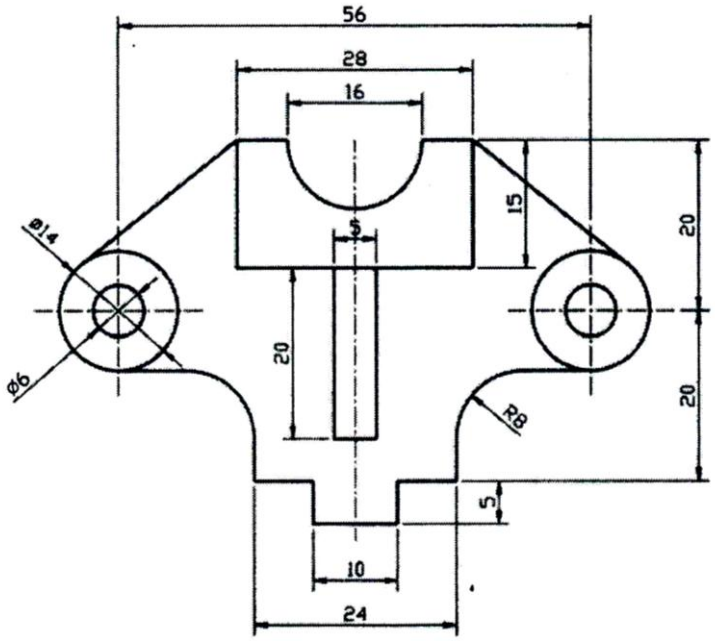


FIGURE 3

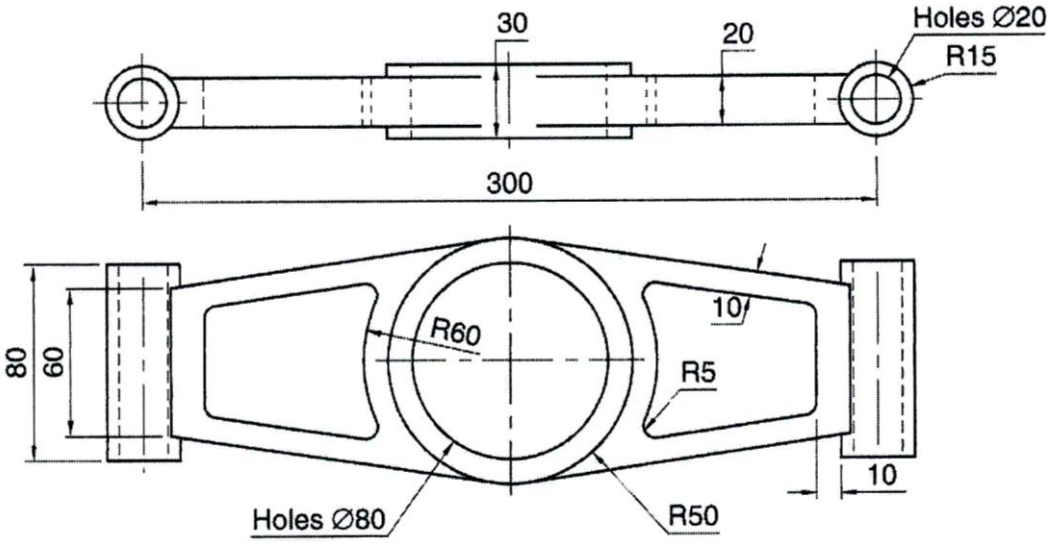


FIGURE 4

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DIAGRAM SHEET 2

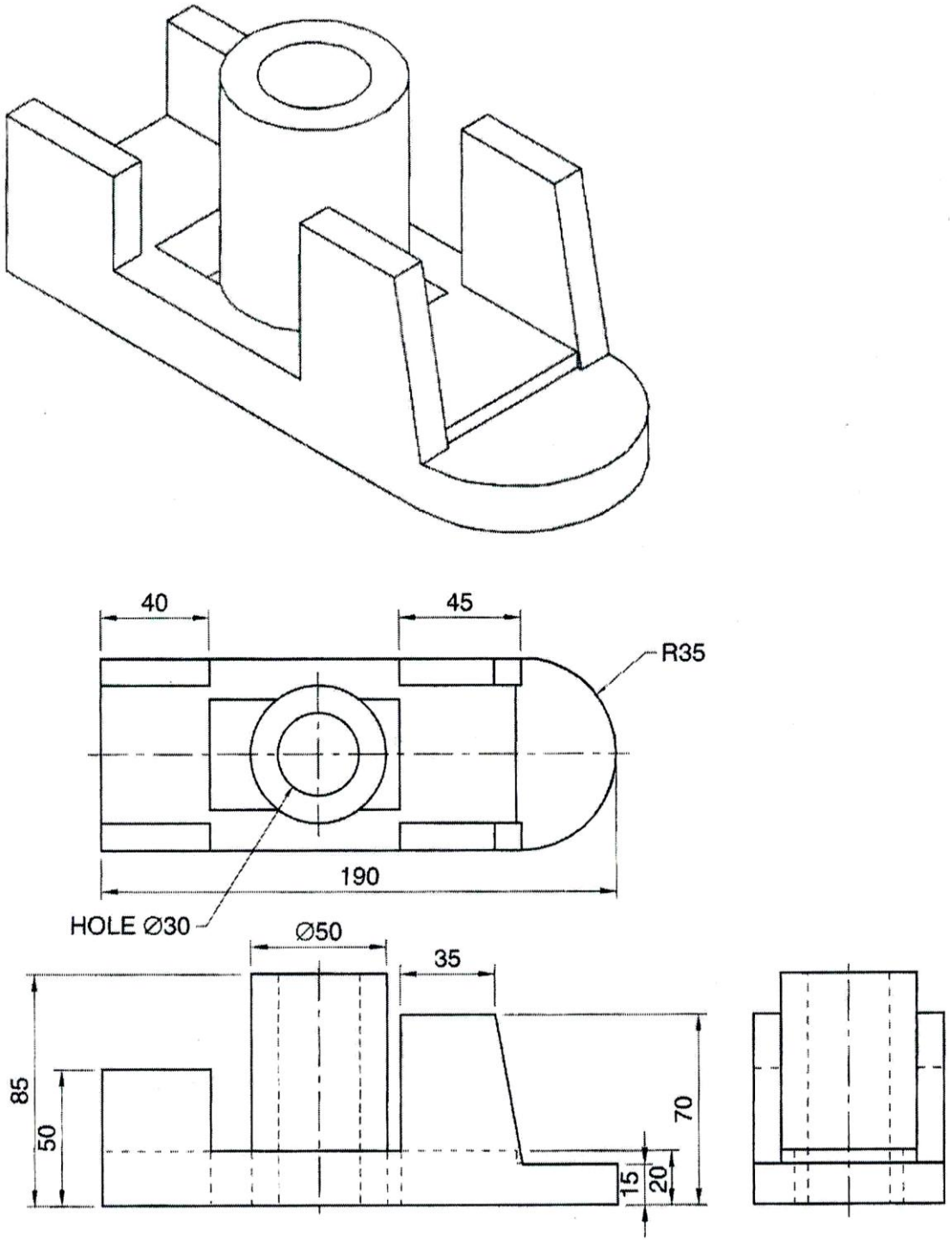


FIGURE 5

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