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

(1250702)

22 November 2022 (X-paper)
09:00–13:00

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

547Q2N2222

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TIME: 4 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

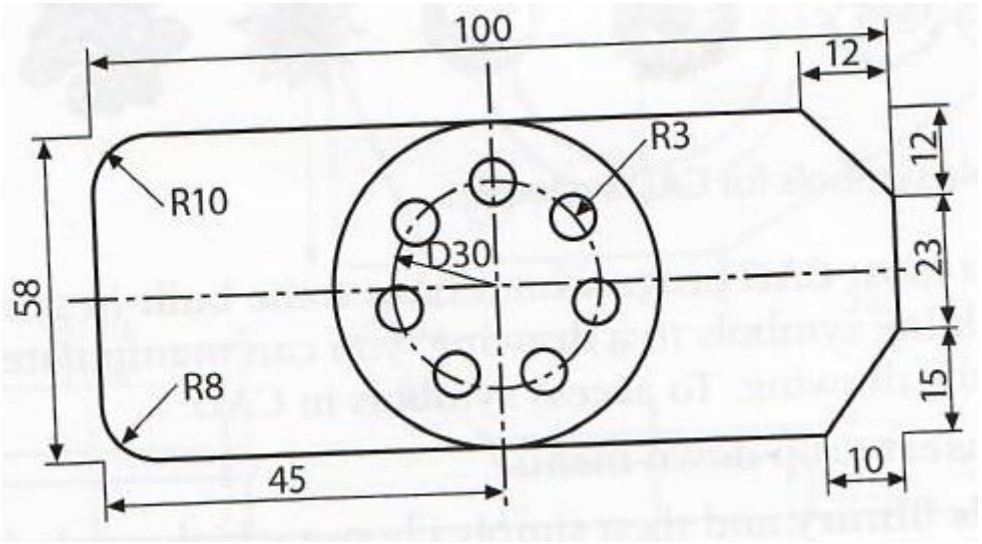
1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Start each section on a new page.
5. Use only blue or black ink.
6. Write neatly and legibly.

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QUESTION 1

1.1 Use the line tool and other relevant supplementary tools of CAD software to draw the shape shown in **FIGURE 1** below on an A4 sheet.

Include a title bar with your student number, the centre number, scale, date and question number.

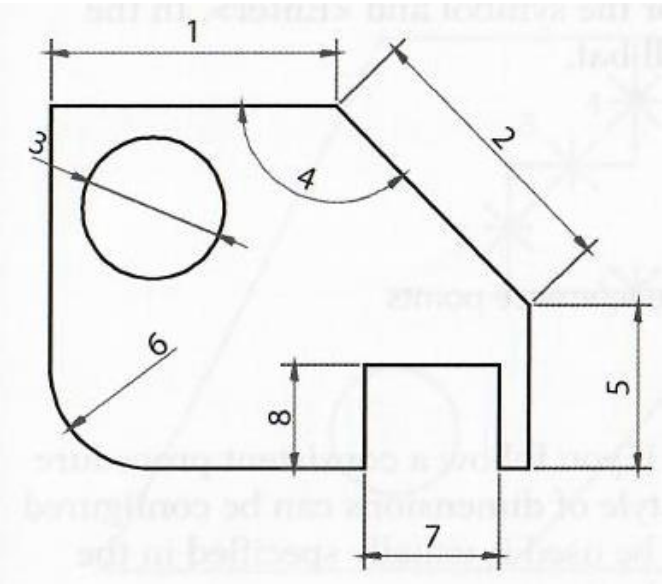


(5)

FIGURE 1

1.2 Use the absolute coordinate method of CAD software to draw **FIGURE 2** on an A4 sheet using the dimensions supplied.

Include a title bar with your student number, the centre number, the scale, date and question number.



(3)

FIGURE 2

1.3 Read the following statements and indicate whether they are TRUE or FALSE by writing only 'True' or "False' next the question number (1.3.1–1.3.2) in the ANSWER BOOK:

1.3.1 The Grips command allows one to manipulate objects.

1.3.2 The advantage of a complete CAD system is that it is freely available at no cost.

(2 × 1) (2)
[10]

QUESTION 2

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

2.1 Use a CAD program to draw the component to a scale of 2:1 on an A4 drawing sheet. (20)

2.2 Include ALL dimensions on the drawing. (4)

2.3 Include a title bar with your student number, the centre number, the scale, date and question number. (3)

2.4 Plot the drawing and candidate information on an A4 sheet. (3)
[30]

QUESTION 3

FIGURE 4, DIAGRAM SHEET 1 (attached) shows a view of a support bracket.

3.1 Draw the TWO given views. (17)

3.2 Include ALL dimensions in the drawing. (5)

3.3 Include a title bar with your student number, the centre number, scale, date and question number. (4)

3.4 Plot the drawing and your candidate information on an A4 sheet. (4)
[30]

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QUESTION 4

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

Use a CAD program to draw the following three views of the component on a scale of 1:1 in third-angle orthographic projection on an A4 sheet:

Indicate all hidden lines.

4.1	The front view	(8)
4.2	The left view	(8)
4.3	The top view	(8)
4.4	Include a title bar with your student number, the centre number, the scale, date and question number.	(3)
4.5	Plot the drawing and your candidate information on an A4 sheet.	(3)
		[30]

TOTAL 100

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DIAGRAM SHEET 1

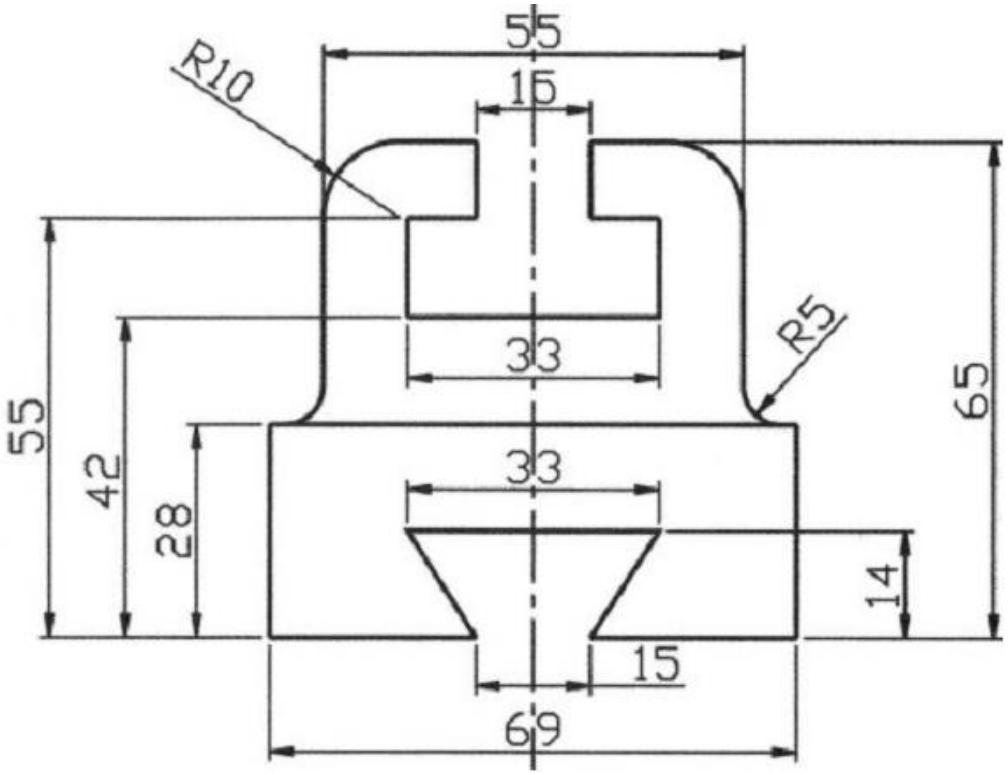


FIGURE 3

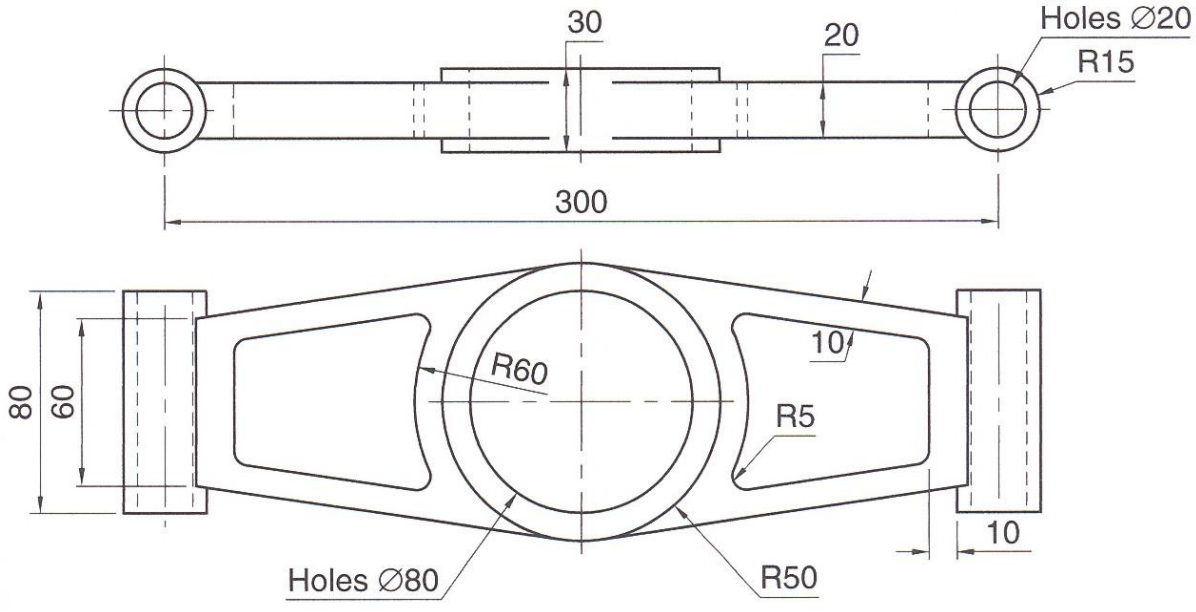


FIGURE 4

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DIAGRAM SHEET 2

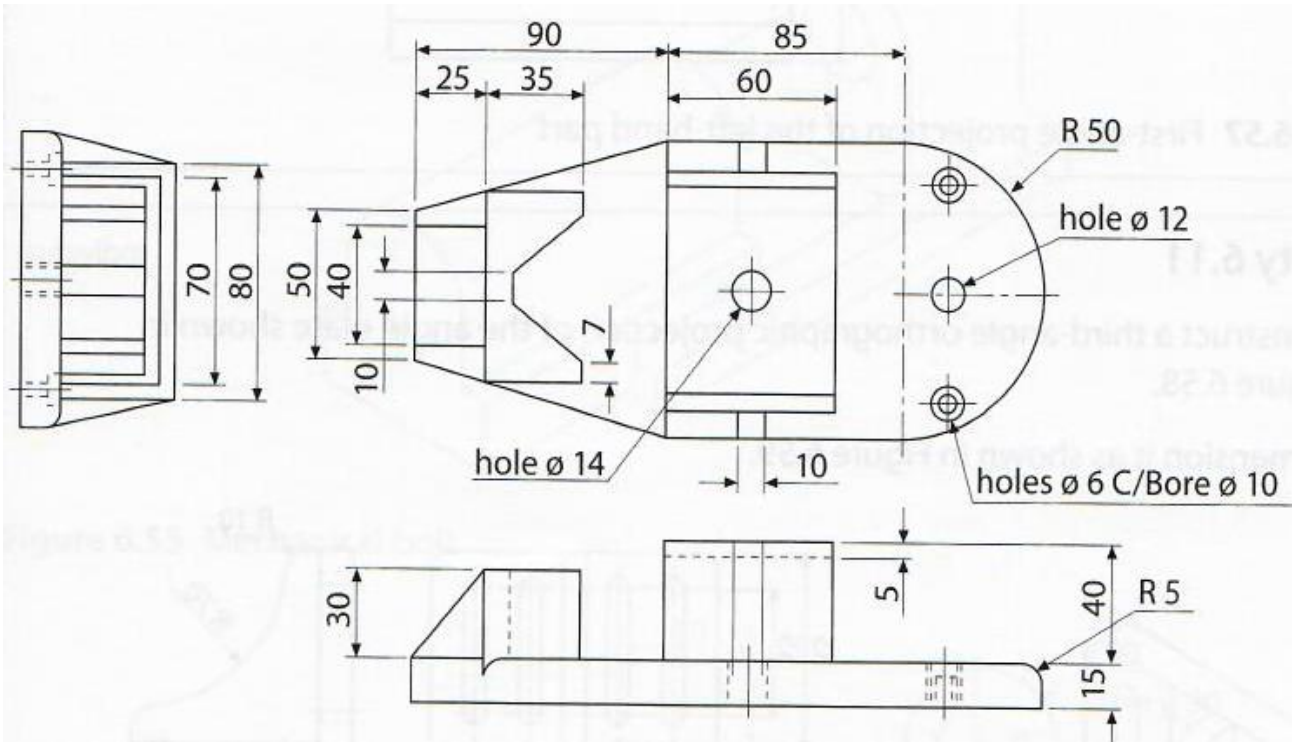


FIGURE 5

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