higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

**NATIONAL CERTIFICATE (VOCATIONAL)**

# ENGINEERING GRAPHICS AND DESIGN

(First paper)

**NQF LEVEL 3**

(6021023)

**26 November 2024 (X-paper)**
**09:00–11:00**

**REQUIREMENTS:** **A4 drawing sheet**
**Computer and printer/plotter**
**CAD program**

**This question paper consists of 3 pages and 1 diagram sheet.**

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# DEPARTMENT OF HIGHER EDUCATION AND TRAINING
# REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
ENGINEERING GRAPHIC AND DESIGN
(First paper)
NQF LEVEL 3
TIME: 2 HOURS
MARKS: 25

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**INSTRUCTIONS AND INFORMATION**

1. Answer all the questions.
2. Read all the questions carefully.
3. A balanced layout is very important, and candidates will be penalised for poor planning.
4. Candidates will be responsible, under supervision, for plotting their own drawings.
5. Candidates' information must be plotted on the bottom right corner of the page.
6. Use your own discretion where dimensions are NOT given.
7. Write neatly and legibly.

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## QUESTION 1

A DIAGRAM SHEET 1 (attached) shows a pump cover in first-angle orthographic projection.

1.1 Draw a pump cover using a CAD program to scale 1:1 on an A4 drawing sheet. (8)

1.2 Draw a first-angle orthographic symbol to scale using the CAD program at the bottom right corner on top of the name block. (2)

1.3 Include any 5 dimensions on the drawing. (5)

1.4 Draw a border line of 10 mm. (2)

1.5 Print QUESTION 1 at the top centre of the sketch. (1)

1.6 Print the title and scale centrally beneath the drawing. (2)

1.7 Insert the following information at the bottom right-hand corner of the page.

1.7.1 Examination Number

1.7.2 Centre Number

1.7.3 Date

(3 × 1) (3)

1.8 NB: TWO marks will be given for the accuracy of the sketch (2)

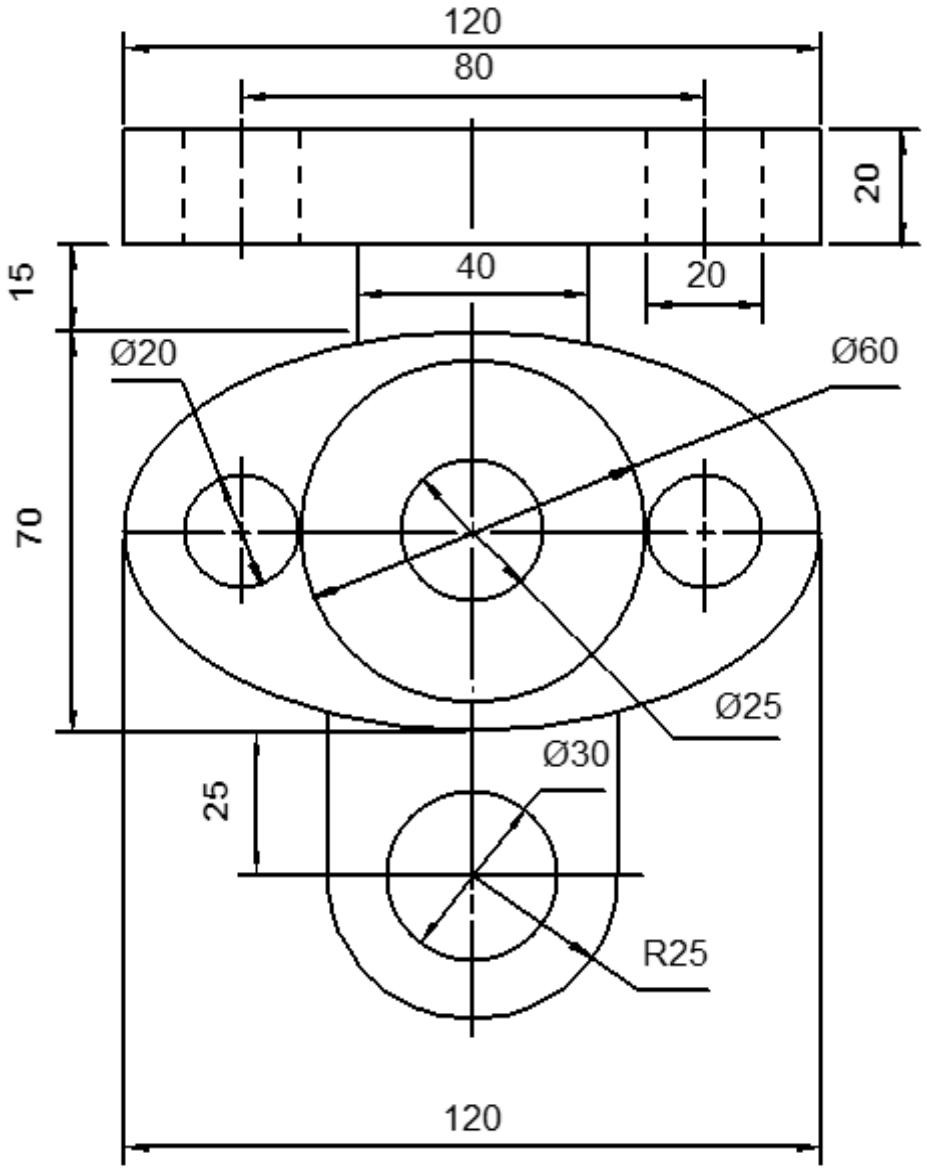
**[25]**

**TOTAL: 25**

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(6021023)

**DIAGRAM SHEET 1**




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