higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE:
MULTIDISCIPLINARY DRAWING OFFICE PRACTICE

TECHNICAL ILLUSTRATION

(8090235)

15 November 2019 (X-Paper)
09:00–13:00

REQUIREMENTS: **A4 drawing sheets**
A4 tracing paper
Grid

This question paper consists of 3 pages and 3 diagram sheets.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
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NATIONAL CERTIFICATE:
MULTIDISCIPLINARY DRAWING OFFICE PRACTICE
TECHNICAL ILLUSTRATION
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. Use only ONE side of each DRAWING SHEET.
5. Answer QUESTION 1 in the ANSWER BOOK. Answer ALL other questions on the DRAWING SHEETS.
6. Complete ALL drawing work, including the candidate's information, in pencil.
7. Show ALL construction lines.
8. Marks will be awarded for neatness and accuracy.
9. A balanced layout is very important and candidates will be penalised for poor planning.
10. Work neatly.

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QUESTION 1: TECHNICAL ILLUSTRATION

1.1 Complete the following paragraph by writing the missing word or words next to the question number (1.1.1–1.1.3) in the ANSWER BOOK.

Technical illustrations generally describe and explain the subject to a nontechnical audience. The visual image should therefore be accurate in terms of (1.1.1) … and (1.1.2) … and should provide an overall impression of the functionality of the object to enhance the viewer's (1.1.3) … (3 × 1) (3)

1.2 List THREE communication categories of technical illustration. (3)

[6]

QUESTION 2: TWO-POINT PERSPECTIVE

DIAGRAM SHEET 1 (attached) shows the top view of a model and its dimensions. ALL measurements are given in millimetres. The distance of the eye in front of the PP is 120 mm. The height of the eye above the GL is 90 mm. The model lies on the GL with its leading edge point A 30 mm to the right.

Draw the model with its sides vanishing to the right at an angle of 45º of the CV. Include a title bar with your student number, centre number, scale, date and question number. **[16]**

QUESTION 3: OBLIQUE PERSPECTIVE

DIAGRAM SHEET 2 (attached) shows an object with ascending planes and its dimensions. ALL measurements are given in millimetres. The distance of the eye in front of the PP is 130 mm. The height of the eye above the GL is 100 mm. Point A is situated 30 mm to the right of the CV (a1).

Construct the object in two-point perspective with raised and lower vanishing points. Include a title bar with your student number, centre number, scale, date and question number. **[22]**

QUESTION 4: CONSTRUCTION OF OFF-PLANE ANGLES

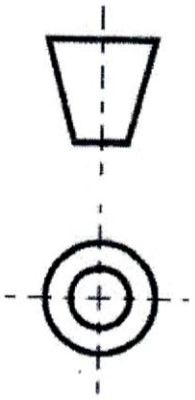
DIAGRAM SHEET 3 (attached) shows an exploded view of an assembly and its dimensions.

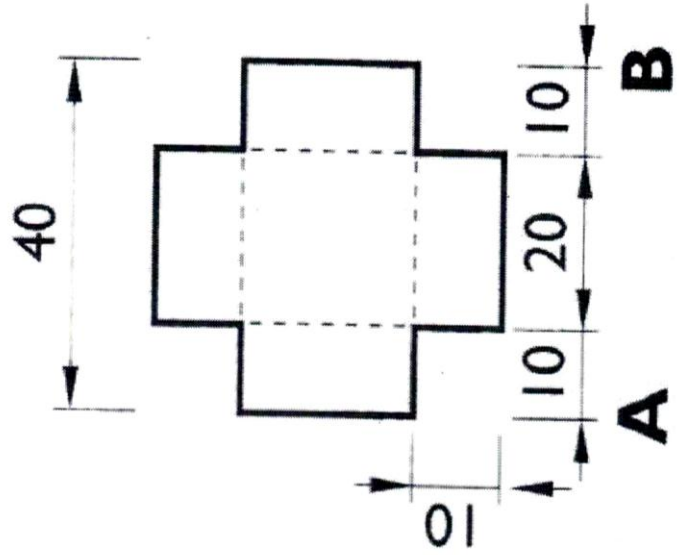
Draw, to scale 2 grid units:10 mm, the model on the GRID supplied. Outline the object in bolder line treatment 0,5 mm thick. Do NOT show the dimensions on the final illustration. Include a title bar student number, centre number, scale, date and question number. **[56]**

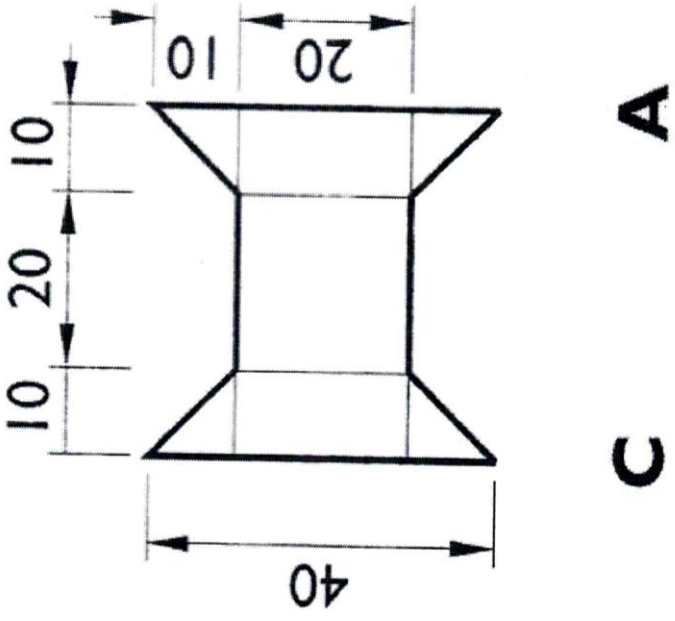
TOTAL: 100

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DIAGRAM SHEET 1



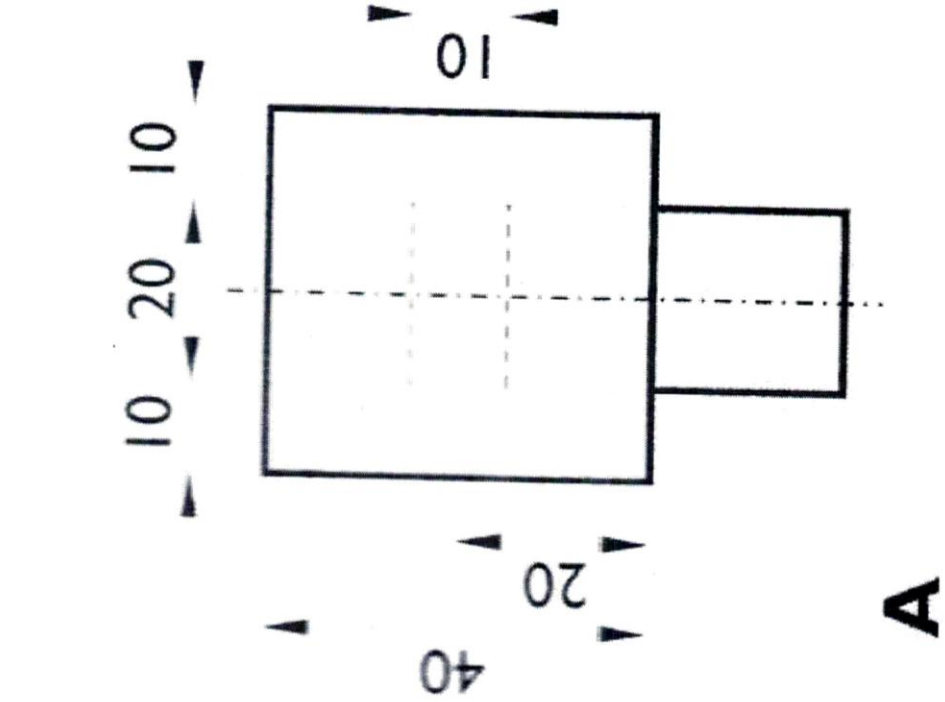




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DIAGRAM SHEET 2





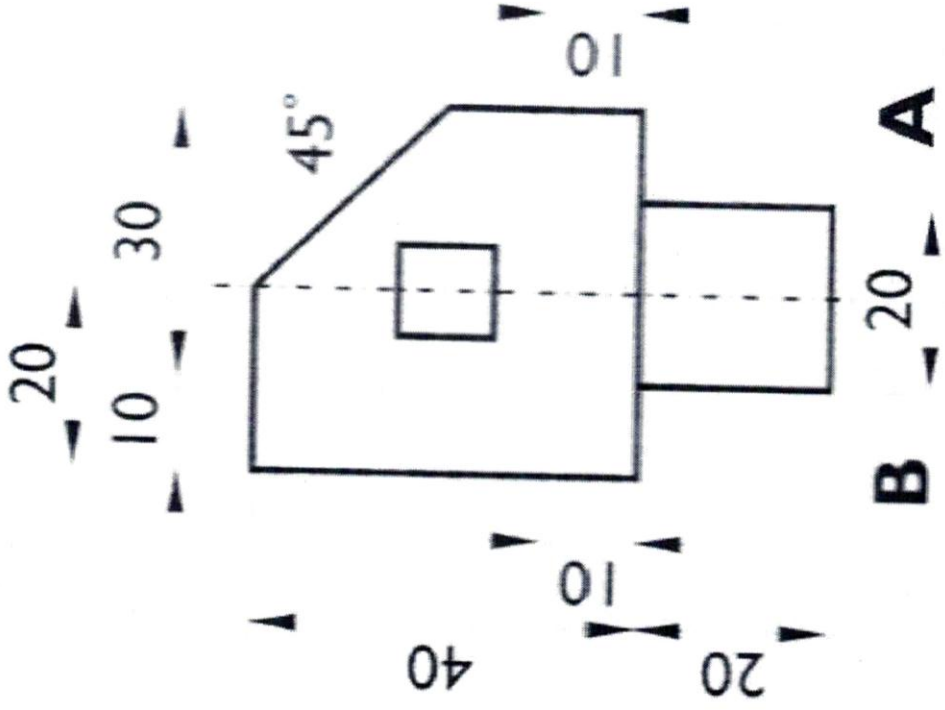
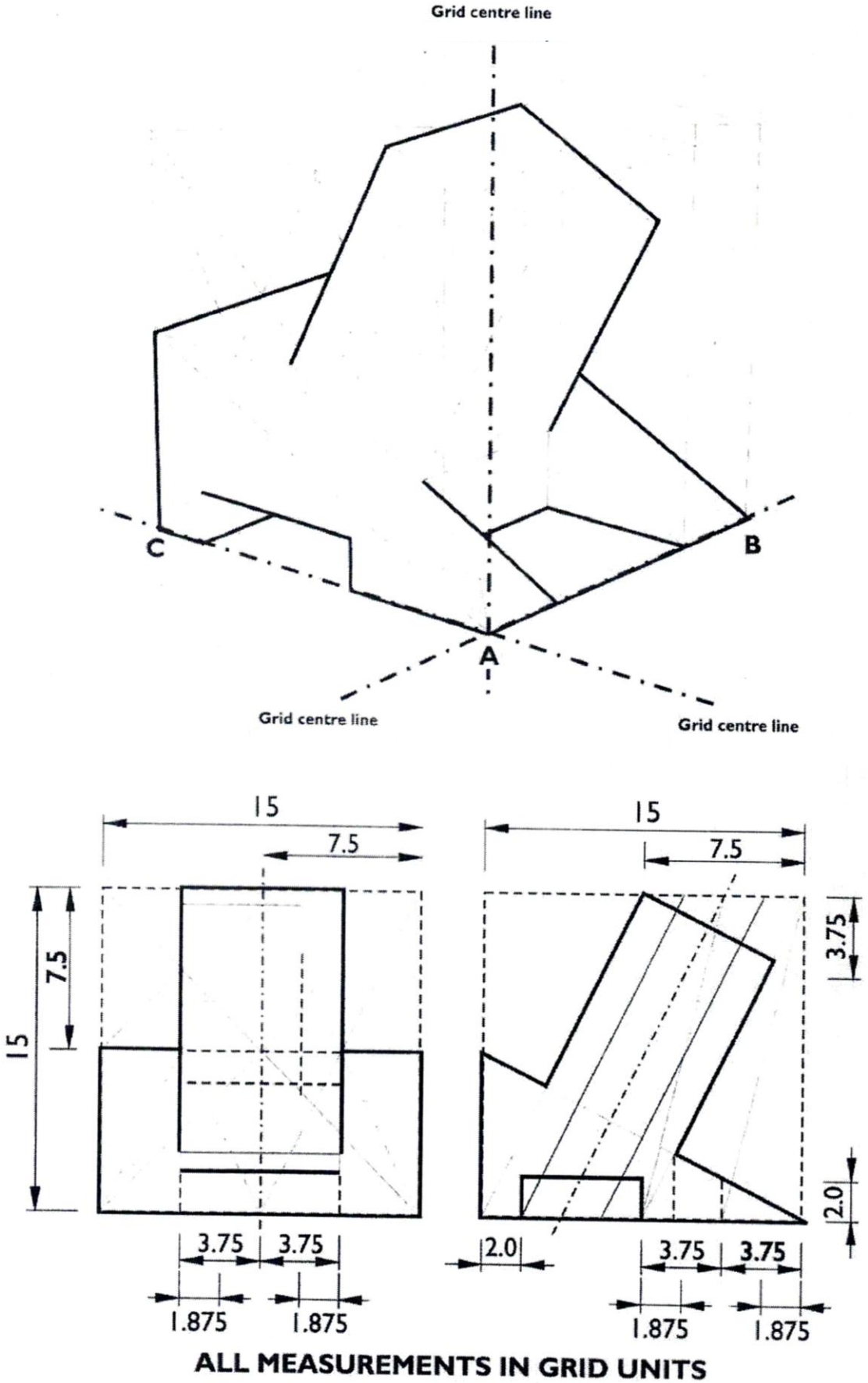


DIAGRAM SHEET 3



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