higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T740**(E)**(A7)T

NATIONAL CERTIFICATE: MULTI-DISCIPLINARY DRAWING OFFICE PRACTICE

GENERAL DRAUGHTING

(8090194)

7 August 2018 (X-Paper)
09:00–13:00

CLOSED-BOOK EXAMINATION

REQUIREMENTS: ONE A2 drawing sheet

Calculators may be used.

This question paper consists of 4 pages and 6 diagram sheets.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE: MULTI-DISCIPLINARY DRAWING
OFFICE PRACTICE
GENERAL DRAUGHTING
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. ALL drawings must be large, clear, neat and in good proportion.
5. Keep questions and subsections of questions together.
6. Write neatly and legibly.

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QUESTION 1: GEOMETRIC CONSTRUCTION

FIGURE 1, DIAGRAM SHEET 1 (attached), shows a plate.

Draw, to scale 1 : 2, the given view. Insert any dimensions. Print the title and scale centred beneath the drawing. Show ALL construction lines. **[20]**

QUESTION 2: DEVELOPMENT

FIGURE 2, DIAGRAM SHEET 2 (attached), shows a main pipe with a conical downpipe.

Draw, to scale 1 : 5, the given views and develop item A. Show construction lines. **[20]**

QUESTION 3: INTERPENETRATION

FIGURE 3, DIAGRAM SHEET 3 (attached), shows interpenetration between a pyramid cover and a horizontal cylindrical duct.

Draw, to scale 1 : 1, the given views in first-angle orthographic projection and show the following:

3.1 The interpenetration curve on the front view

3.2 The interpenetration curve on the top view

Show ALL projection lines. **[15]**

QUESTION 4: ORTHOGRAPHIC PROJECTION

FIGURE 4, DIAGRAM SHEET 4 (attached), shows the auxiliary and front views of a combination of two right regular solids.

Draw:

4.1 The given front view

4.2 A top view

4.3 A left view

Show ALL hidden details. **[24]**

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QUESTION 5: THE LOCI

Draw a cycloid according to the information given in FIGURE 5, DIAGRAM SHEET 5 (attached). Represent only ONE revolution. Show calculations and construction lines. **[15]**

QUESTION 6: THEORY

Copy the table drawn in FIGURE 6, DIAGRAM SHEET 6 (attached), and print any THREE types of drawing sheets that are suitable for engineering drawing. **[6]**

TOTAL: 100

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DIAGRAM SHEET 1

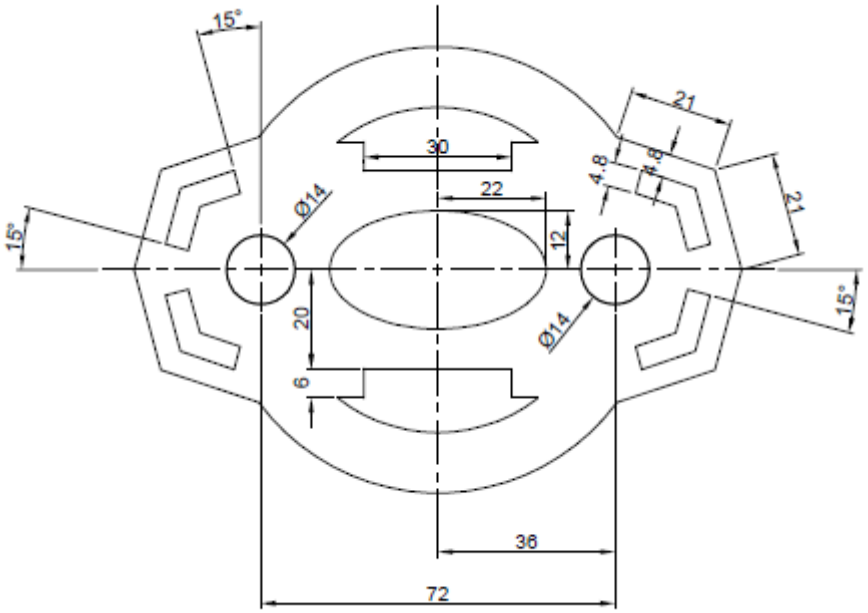
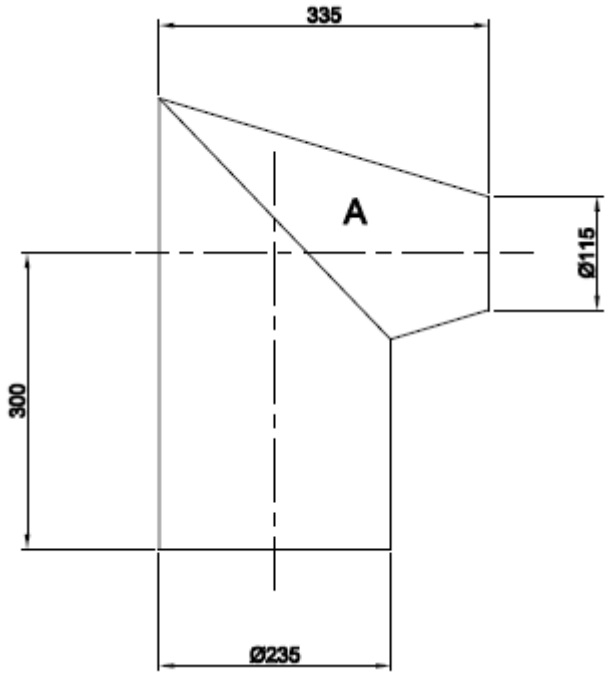


PLATE
SCALE 1 : 1

FIGURE 1

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DIAGRAM SHEET 2

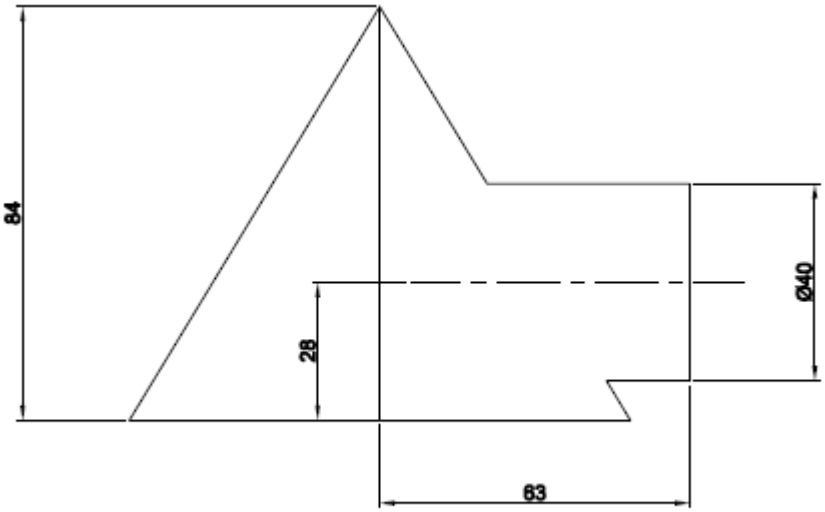


SCALE 1 : 5

FIGURE 2

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DIAGRAM SHEET 3



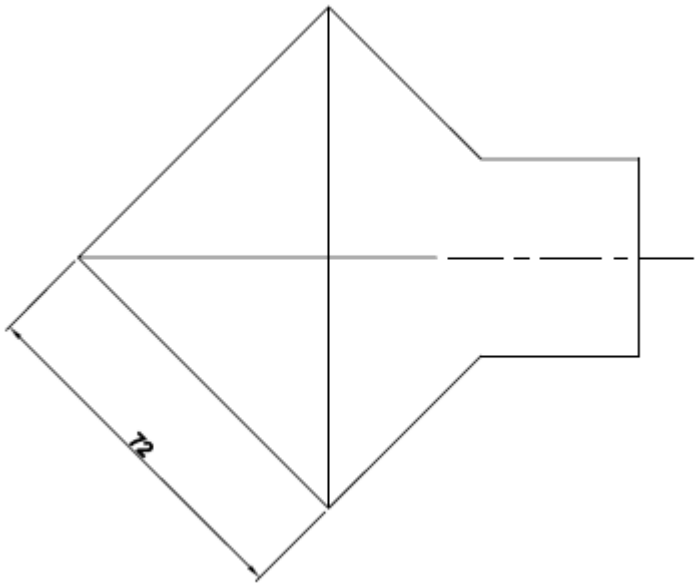


FIGURE 3

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DIAGRAM SHEET 4

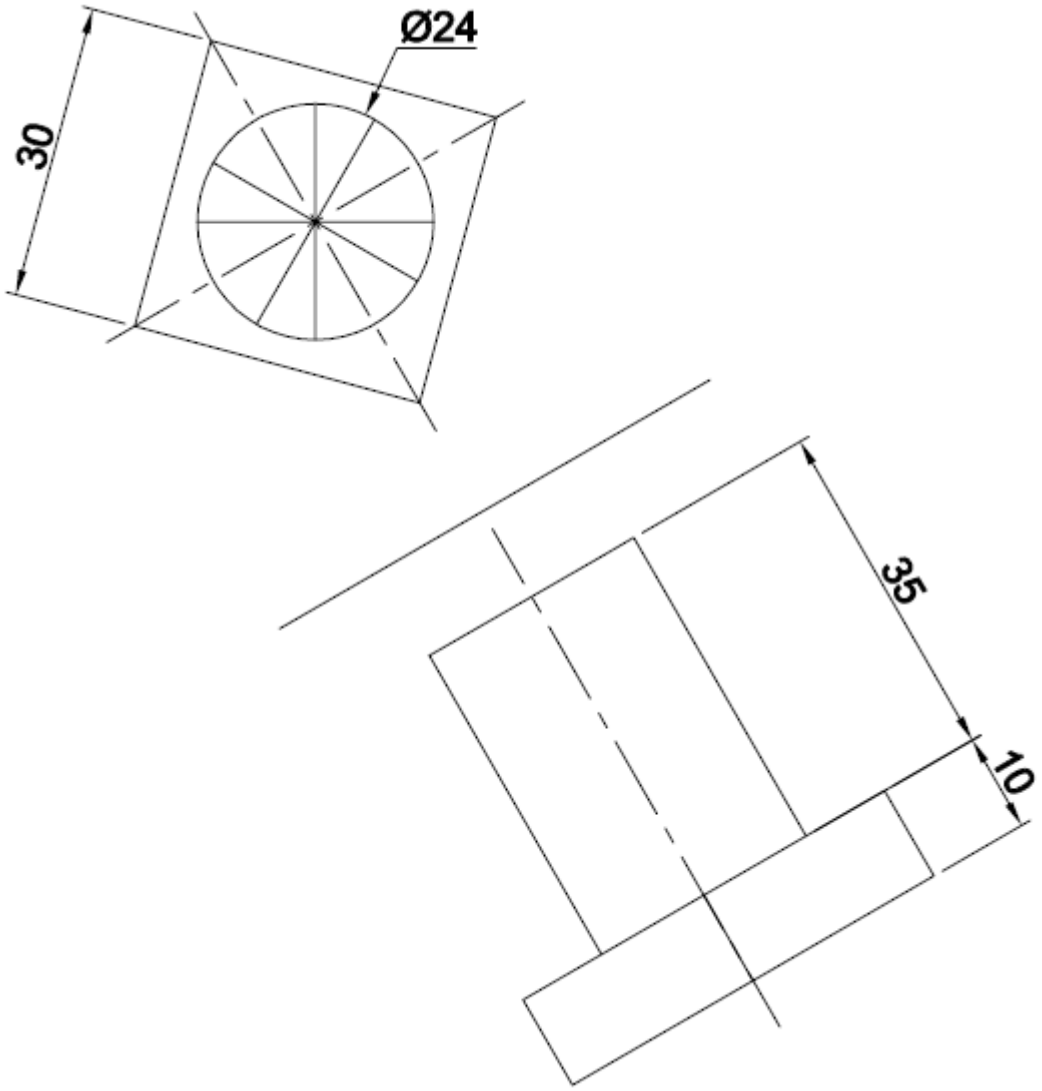


FIGURE 4

DIAGRAM SHEET 5

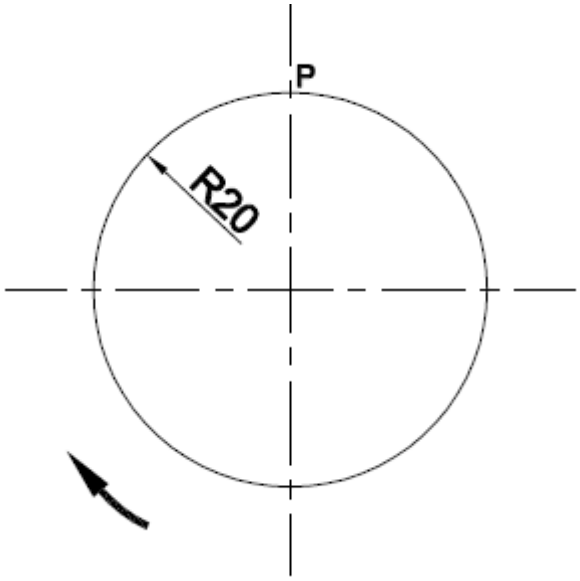


FIGURE 5

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DIAGRAM SHEET 6

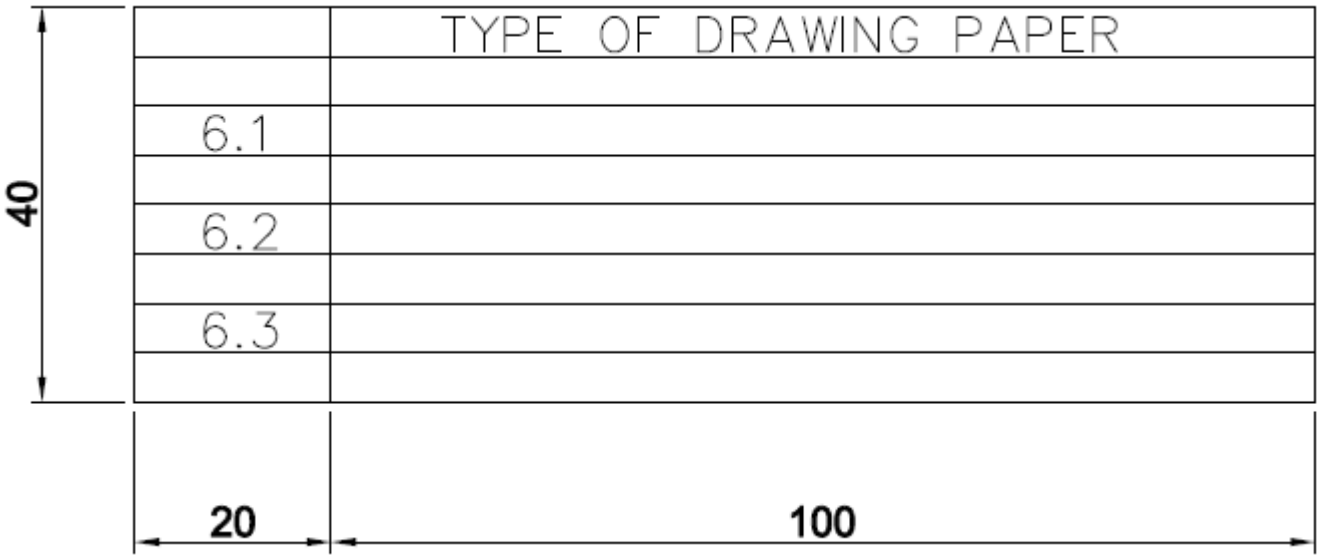


FIGURE 6

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