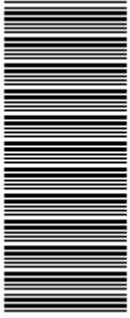


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higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T1240(E)(A5)T
AUGUST EXAMINATION

NATIONAL CERTIFICATE

PLATING AND STRUCTURAL STEEL DRAWING N4

(8090124)

5 August 2014 (Y-Paper)
13:00–17:00

Calculators may be used.

This question paper consists of 4 pages, 1 answer sheet and a 3 diagram sheets.

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
PLATING AND STRUCTURAL STEEL DRAWING N4
TIME: 4 HOURS
MARKS: 100

NOTE: If you answer more than the FOUR required number of questions, only the required number of questions will be marked. All work you do not want to be marked must be clearly crossed out.

INSTRUCTIONS AND INFORMATION

1. Answer FOUR of the five questions.
 2. Read ALL the questions carefully.
 3. Number the answers according to the numbering system used in this question paper.
 4. Show ALL the calculations on the drawing paper.
 5. Insert dimensions, title and the scale on each drawing.
 6. Do TWO questions on the front and TWO questions on the reverse side of the drawing paper.
 7. Only ONE sheet of drawing paper may be used.
 8. Write neatly and legibly.
-

QUESTION 1

FIGURE 1, DIAGRAM SHEET 1 (attached), shows a front view and a top view of a three-way junction piece.

Draw the given views, draw a left view and develop the half pattern of the junction piece.

THREE-WAY JUNCTION PIECE

SCALE 1 : 2

[25]

QUESTION 2

FIGURE 2, DIAGRAM SHEET1 (attached), shows an incomplete view of a gusset plate joining two unequal diameter pipes.

Draw the given views and develop the plate to form the gusset plate.

GUSSET PLATE

SCALE 1 : 10

[25]

QUESTION 3

FIGURE 3, DIAGRAM SHEET1 (attached), shows two views of a rectangular hopper.

Calculate the true lengths on the drawing paper and then complete the attached table.

Use these lengths to draw half the pattern of the hopper.

NOTE: Marks will not be awarded for lengths taken from the drawing to scale.

RECTANGULAR HOPPER

SCALE 1 : 1

[25]

QUESTION 4

FIGURE 4, DIAGRAM SHEET 2 (attached), shows an incomplete view of a conical hopper on a FLAT hemispherical dome.

Draw the complete view and develop the shape of the plate required for the conical hopper.

CONICAL HOPPER

SCALE 1 : 2

[25]

QUESTION 5

FIGURE 5, DIAGRAM SHEET 3 (attached), shows an incomplete front and side view of conical cover with a sight screen holder.

Draw the complete given views and the top view with the penetration line and develop the conical cover and sight screen holder.

CONICAL INTERSECTION

SCALE 1 : 5

[25]

TOTAL: 100

ANSWER SHEET EXAMINATION NUMBER:

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This table must be handed in together with the drawing paper.
The calculations must be done on the drawing paper.

CALCULATE	TRUE LENGTH	%
1-2		(1/2)
2-3		(1/2)
5-4		(1/2)
A-B		(1/2)
B-C		(1/2)
A-1		(1,5)
A-2		(2)
B-2		(2)
B-3		(2)
C-3		(2)
D-3		(2)
D-4		(1)
	Total	15

DIAGRAM SHEET 1

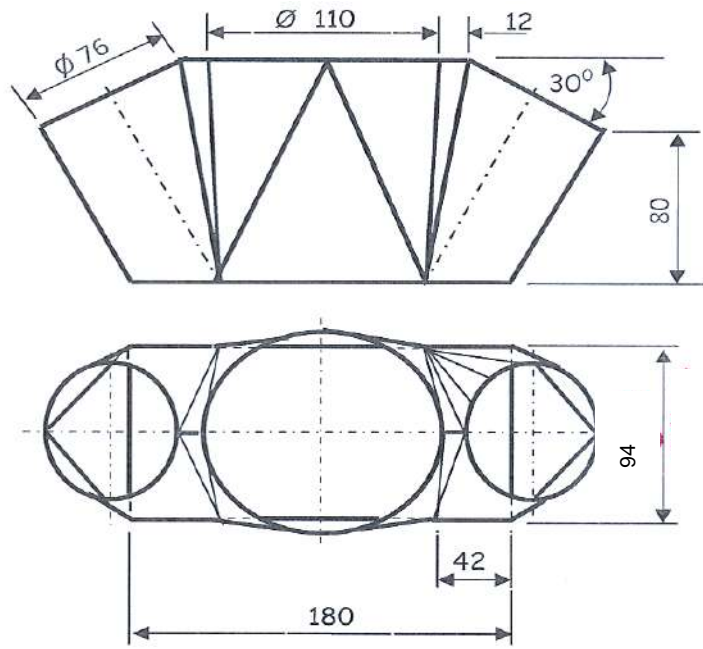


FIGURE 1

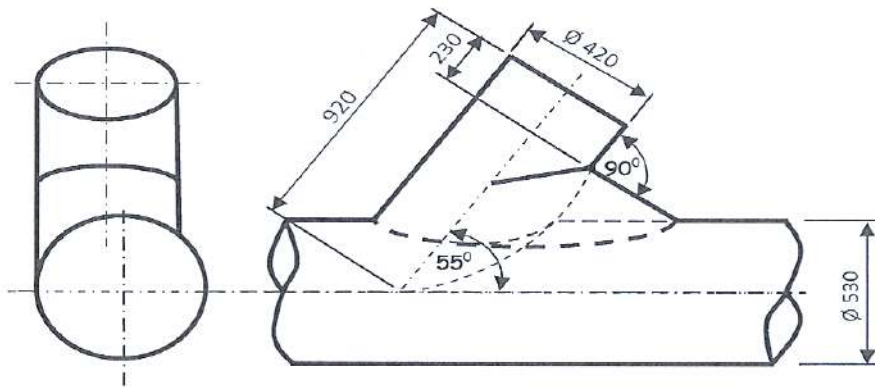


FIGURE 2

DIAGRAM SHEET 2

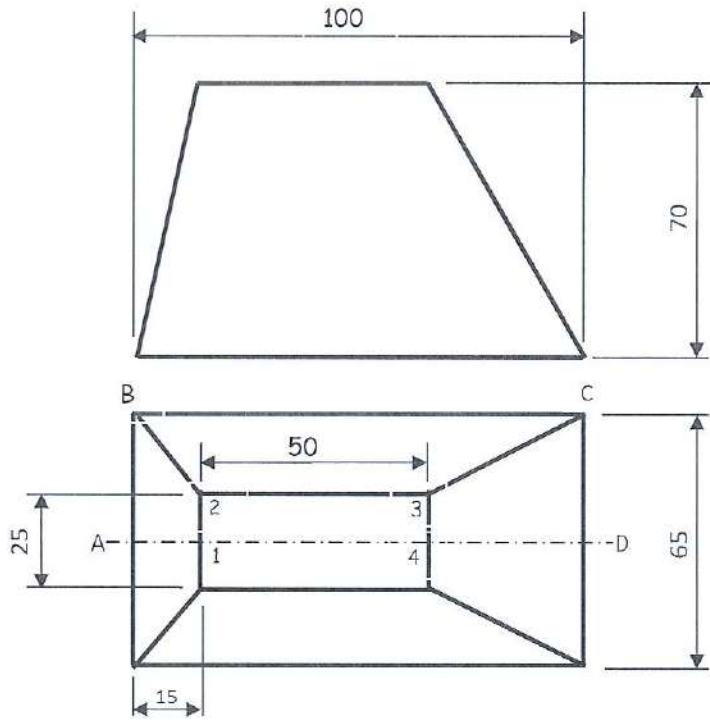


FIGURE 3

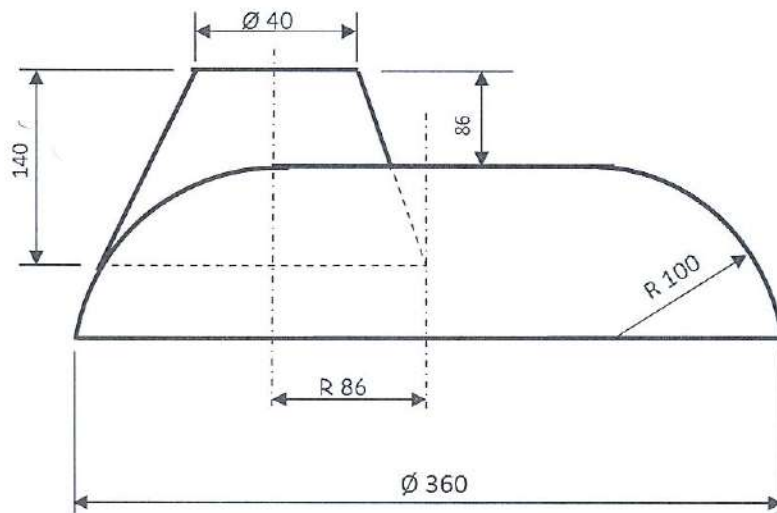


FIGURE 4

DIAGRAM SHEET 3

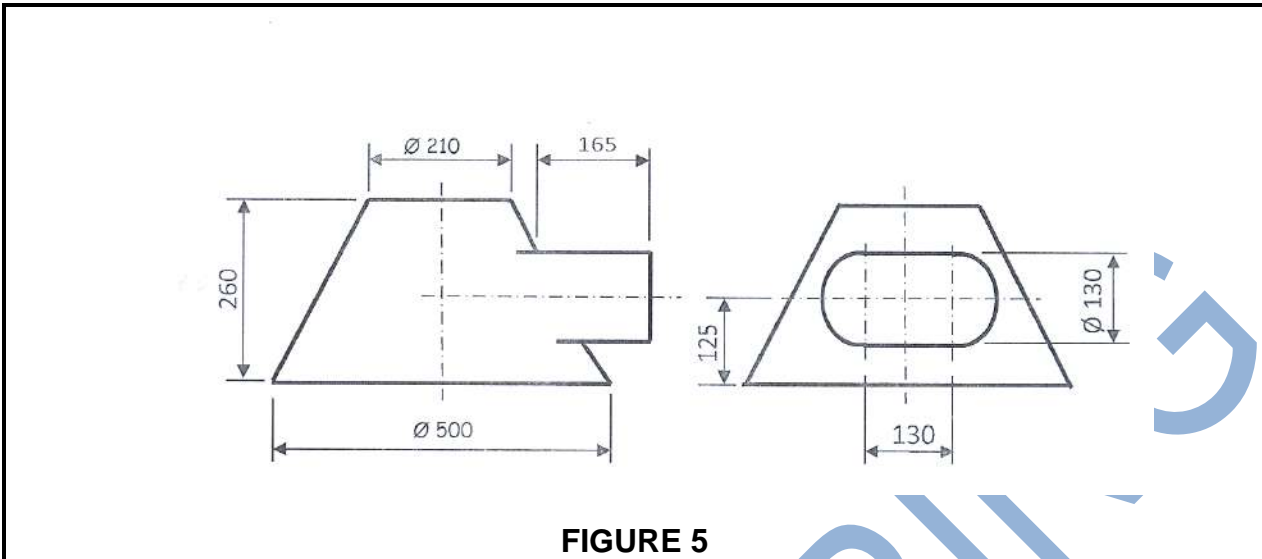


FIGURE 5