PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This question paper consists of 6 pages including the cover page and 4 questions.
2. All questions must be answered.
3. Unless specified otherwise, all questions are in First-angle Orthographic Projection.
4. Unless specified otherwise, all questions are to be completed to a scale of 1:1.
5. All answer sheets must be re-stapled in numerical order, even questions that are not attempted/blank.
6. All construction work must be shown.
7. Print your examination number neatly on each page.
8. Use only the answer sheets provided.
9. Your drawings should reflect neatness and accuracy.
10. All dimensions or detail not given may be assumed in good proportion.
11. Your drawings should comply with SANS 10143.

MARKS: 200
TIME: 3 HOURS
STUDY THE ADJACENT DRAWING AND INFORMATION AND ANSWER THE QUESTIONS THAT FOLLOW:

1.1 What type of civil drawing is shown? 1
1.2 What elevation faces the Gold Street? 1
1.3 Who checked the drawing? 1
1.4 In which town is the architect's office located? 1
1.5 On what erf number will the proposed additions be erected? 1
1.6 What is the feature at 1 called? 1
1.7 What is the feature at 2 called? 1
1.8 What is the feature at 3 called? 1
1.9 What is the feature at 4 called? 1
1.10 What is the feature at 5 called? 1
1.11 What is the feature at 6 called? 1
1.12 What is the feature at 7 called? 1
1.13 What is the feature at 8 called? 1
1.14 What is the feature at 9 called? 1
1.15 Which direction would you face when reversing out of the garage? 1
1.16 How many metres would Mr Villiers walk if he walked the boundary? 1
1.17 By how many metres is the highest corner above the lowest? 1
1.18 What is the closest Mr Villiers is allowed to build to Gold Street? 1
1.19 In the space below, determine the area of the proposed new garage in m²: 2

Answer:
The figure below shows the INCOMPLETE Front View and the Top View of an EQUILATERAL TRIANGULAR DUCT penetrated by an CIRCULAR PIPE drawn in First-angle Orthographic Projection. The auxiliary view of the circular pipe is also shown in the Top View.

Draw the following:
2.1 the complete FRONT view clearly showing the curve of interpenetration. Show all hidden detail.
2.2 the complete TOP view.
2.3 the development of the two surfaces of the triangular duct that are being penetrated, clearly showing the curve of interpenetration. Show all construction.

ASSESSMENT CRITERIA
You will be assessed on your ability to do the following:
- draw the given views 5
- complete the front view 17
- show necessary construction 3
- develop and label the triangular duct 15

40 MARKS
The figure shows the three views of an outside entertainment area, which includes a braai. Draw a neat two-point perspective view of this area.

**ASSessment CRITERIA**

You will be assessed on your ability to do the following:
- determine and label the vanishing points 2
- determine the two-point perspective view 38

Neatly label the vanishing points RVP and LVP. NO HIDDEN DETAIL IS REQUIRED.
Answer this question on ANSWER SHEET 4. Use a scale of 1:50.

The following is given:

- An incomplete schematic floor plan of a tiled LAUNDRY addition with
  - window and door positions
  - perimeter dimensions
- An incomplete schematic elevation with
  - door and window positions, ground and floor levels
- Incomplete foundation detail
- Roof and roof truss detail
- Window, window frame, window sill and door frame detail
- The existing wall to which the addition is attached

Draw the following:
1. The complete floor plan attaching your drawing to the given existing walls on answer sheet 4.
2. The SOUTH elevation showing the section as indicated by the cutting plane A-A.
3. The outside EAST elevation showing the laundry addition only.

FLOOR PLAN INSTRUCTIONS

- Draw and hatch all walls
- Indicate appropriately, the removed section of the existing wall
- Insert all window details and the door detail
- Draw the gully
- Label the floor plan and indicate the scale, room designation and floor finish
- Insert the following electrical detail:
  - A TWO, 40 watt fluorescent tube light in the middle of the room
  - one wall mounted light outside the door
  - one double pole light switch on the western wall for both the lights
  - one switched socket outlet on the northern wall under the window
- Insert the SANS plumbing symbol for the double sink unit
- Draw and label the cutting plane A-A

SECTIONAL SOUTH ELEVATION INSTRUCTIONS

- Draw the complete south elevation showing the section as per the indicated cutting plane
- Show the removed section of the existing wall
- Show the outside C22 window
- Complete the foundation details
- Draw all floor slab details
- Use 10 mm screwed and 150 mm compacted hardcore filling
- Label the ground level and damp-proof course
- Draw in the sectional door
- Use ONE, 242 x 75 concrete lintel above the door
- Roof details:
  - Draw the roof truss using 114 x 38 rafters and 100 x 75 plates
  - Use THREE, 100 x 50 purlins spaced at 2.560 centres
  - Use ONE, 121 x 38 wall plate
  - Use TWO, 38 x 38 battens spaced at 1.253 centres
  - Use 228 x 38 fascia board
- Use 9 mm gypsum ceiling boards
- Correctly position the SANS symbol for the double sink unit
- Show all hatching detail and label the Sectional South Elevation

EAST ELEVATION INSTRUCTIONS

- Draw the complete outside east elevation showing the laundry only
- Show some detail for the corrugated asbestos roof sheeting
- Indicate the Finished Floor Level and label the elevation

EXAMINATION NUMBER

PLEASE TURN OVER
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**100 MARKS**