INSTRUCTIONS AND INFORMATION
1. This question paper consists of FOUR questions.
2. Answer ALL the questions.
3. ALL drawings are in first-angle orthographic projection, unless otherwise stated.
4. ALL drawings must be prepared using pencil and instruments, unless otherwise stated.
5. ALL answers must be drawn accurately and neatly.
6. ALL the questions must be answered on the QUESTION PAPER, as instructed.
7. ALL the pages, irrespective of whether the question was attempted or not, must be re-stapled in numerical sequence in the TOP LEFT-HAND CORNER ONLY.
8. Time management is essential in order to complete all the questions.
9. Print your examination number in the block provided on every page.
10. Any details or dimensions not given must be assumed in good proportion.

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<th>QUESTION</th>
<th>MARKS OBTAINED</th>
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FINAL CONVERTED MARK CHECKED BY

100

COMPLETE THE FOLLOWING:

CENTRE NUMBER

CENTRE NUMBER

EXAMINATION NUMBER

EXAMINATION NUMBER
NOTE:
Contractors must verify all dimensions and levels on site before commencing work. Architects to be notified immediately of any discrepancies.

ARCHITECTS SIGNATURE: 

CLIENT'S SIGNATURE: 

ANSWER 18
In the space below, draw, in neat freehand, the SANS 70143 hatching (symbol) for a (18.1) FACE BRICK WALL, and graphical symbol for a (18.2) STAIRCASE.

ANSWER 19
In the space below (ANSWER 19), determine the total length of the 1800 high pallisade fence required for STAND 3414, in metres.

ANSWER 20
In the space below (ANSWER 20), determine the total area of the house, including the new extension, in square metres. Show the answer to TWO decimal places.

QUESTIONS

1. What does the number FTW2022-59 refer to? 
2. Who is the client? 
3. What is the title of the drawing? 
4. What action was taken on 08/01/2022? 
5. Who was responsible for preparing the revisions to the drawing? 
6. How wide is the road reserve in metres? 
7. Whose signatures are required on the site plan? 
8. How many new inspection eyes are shown on the site plan? 
9. What does the abbreviation RWDP stand for? 
10. Which corner of STAND 3414 is the highest? 
11. Determine the shortest distance from the proposed new extension to boundary line AB in metres. 
12. What is indicated in BLUE on floor plans and/or sections? 
13. Name the feature at A. 
14. What is indicated by the arcs at 22? 
15. Name the feature at 34. 
16. What does the ratio 1:40 on the new sewerage line indicate? 
17. Which elevation of the existing house faces the N3 National Road? 
18. In the space in the title panel (ANSWER 18), draw, in neat freehand, the SANS 70143 hatching (symbol) for a (18.1) FACE BRICK WALL, and graphical symbol for a (18.2) STAIRCASE.
19. In the space below (ANSWER 19), determine the total length of the 1800 high pallisade fence required for STAND 3414, in metres. 
20. In the space below (ANSWER 20), determine the total area of the house, including the new extension, in square metres. Show the answer to TWO decimal places.

TOTAL 30
QUESTION 2: SOLID GEOMETRY

Given:
- The front view and top view of a right square pyramid that rests against a right regular pentagonal prism
- An auxiliary view of the right square pyramid
- Cutting plane R-R

Instructions:
Draw, to scale 1:1, the following views of both solids:
2.1 The given front view
2.2 A sectional top view with the parts above cutting plane R-R removed
2.3 A sectional right view with the parts below cutting plane R-R removed
2.4 The true shape of the cut surfaces of BOTH solids

- Planning is essential.
- Show ALL hidden detail.
- Show ALL construction.

ASSESSMENT CRITERIA

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QUESTION 3: PERSPECTIVE

Given:
Three views of a club house and the information needed to draw a two-point perspective drawing
PP = Picture plane
HL = Horizon line
GL = Ground line
SP = Station point

Instructions:
Complete the perspective drawing,
- Align the drawing sheet with the ground line (GL).
- Determine and label the vanishing points.
- Show ALL construction.
- Show depth at the windows.
- NO hidden detail is required.

ASSESSMENT CRITERIA

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<th>1 CONSTRUCTION</th>
<th>2 WALL + BASE</th>
<th>3 WINDOWS + OPENING</th>
<th>4 ROOF</th>
<th>5 ARC</th>
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<td>7 1/2</td>
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PENALTIES (+)
QUESTION 4: CIVIL DRAWING

Given:
- The incomplete south elevation of a new house, showing the walls, windows and double swing door openings, step, position of the chimney, roof and labels.
- The incomplete floor plan showing the walls, steps, positions of the doors, windows, chimney and fixtures, as well as electrical layout.
- An incomplete schematic diagram of a roof truss and roof notes.
- The incomplete foundation and external wall detail.
- Room designations and floor finishes.
- A table with chimney detail.
- A door and window schedule.
- A table of electrical symbols.
- A table of roof components.
- A table of fixtures.
- The incomplete floor plan and position of the ground level of the new house, drawn to scale 1:50, and the incomplete foundation and break line for the detailed section, drawn to scale 1:20, on page 6.

Instructions: Answer this question on page 5.

4.1 Using the given incomplete floor plan and ground level, draw, to scale 1:50, the following views of the new house:

4.1.1 THE COMPLETE FLOOR PLAN
Add the following features to the drawing:
- ALL doors and windows.
- ALL fixtures as indicated by the abbreviations.
- ALL electrical fittings as indicated by the numbers.
- ALL the roof lines.
- ALL the hatching detail.

4.1.2 THE COMPLETE SOUTH ELEVATION
Show the following features on the drawing:
- The outside walls, step, chimney, window and double swing door detail.
- The roof detail, including the fascia boards, gutters and rainwater down-pipe.
- The finished floor level.

4.2 Using the given incomplete foundation and break line on page 6, draw, to scale 1:20, a DETAILED SECTION on cutting plane A-A of the area in the ellipse shown on the incomplete floor plan.
Show the following features on the drawing:
- The complete foundation and external wall detail.
- The roof detail, including the fascia board and gutter.
- The chimney and the double swing door and frame to the right (east) of cutting plane A-A.
- ALL the hatching detail. ONLY the substructure hatching may be drawn in neat hand.

Label the following:
- The south elevation.
- The roof finishes.
- Ground level, finished floor level and damp-proof course (use the correct abbreviation and show it on ALL relevant views).

NOTE:
All drawings must comply with the guidelines and graphical symbols as contained in the SANS 10143.