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 completed using 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 must be re-stapled in numerical sequence, irrespective of whether the question was attempted.
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.

FOR OFFICIAL USE ONLY

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>MARKS OBTAINED</th>
<th>½ SIGN</th>
<th>MODERATED</th>
<th>½ SIGN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2</td>
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<td>3</td>
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<td>4</td>
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<td>TOTAL</td>
<td>2 0 0</td>
<td>2 0 0</td>
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</table>

FINAL CONVERTED MARK

100

CHECKED BY

COMPLETE THE FOLLOWING:

CENTRE NUMBER

CENTRE NUMBER

EXAMINATION NUMBER

EXAMINATION NUMBER

This question paper consists of 6 pages.
QUESTION 1: ANALYTICAL (CIVIL)

Given:
The site plan for a proposed new dwelling, a title panel and a table of questions. The drawing has not been prepared to the indicated scale.

Instructions:
Complete the table below by neatly answering the questions, which refer to the accompanying drawing and title panel.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is the reference code for the drawing?</td>
</tr>
<tr>
<td>2</td>
<td>What was the second revision?</td>
</tr>
<tr>
<td>3</td>
<td>What scale is indicated for the drawing?</td>
</tr>
<tr>
<td>4</td>
<td>How many inspection chambers are there on the sewer line?</td>
</tr>
<tr>
<td>5</td>
<td>What finish is used around the pool?</td>
</tr>
<tr>
<td>6</td>
<td>What new development is proposed on the site?</td>
</tr>
<tr>
<td>7</td>
<td>In what colour would new glass be presented on a drawing?</td>
</tr>
<tr>
<td>8</td>
<td>In what colour would new concrete be presented on a drawing?</td>
</tr>
<tr>
<td>9</td>
<td>What is the depth of the feature at 1?</td>
</tr>
<tr>
<td>10</td>
<td>Name the feature at 2.</td>
</tr>
<tr>
<td>11</td>
<td>What does the number at 3 indicate?</td>
</tr>
<tr>
<td>12</td>
<td>What does the line at 4 indicate?</td>
</tr>
<tr>
<td>13</td>
<td>Name the feature at 5.</td>
</tr>
<tr>
<td>14</td>
<td>Name the feature at 6.</td>
</tr>
<tr>
<td>15</td>
<td>Which elevation of the new dwelling faces Gotze Street?</td>
</tr>
<tr>
<td>16</td>
<td>What is the distance from the swimming pool to the south-western boundary line in metres?</td>
</tr>
<tr>
<td>17</td>
<td>What is the length of the boundary facing stand 32 in metres?</td>
</tr>
<tr>
<td>18</td>
<td>In the space below, determine the perimeter of the new dwelling in metres.</td>
</tr>
<tr>
<td>19</td>
<td>In the space below, determine the total building area of stand 31 in square metres.</td>
</tr>
<tr>
<td>20</td>
<td>In the space provided in the title panel, draw, in neat hand, the front view and top view of the SANS 10743 graphical symbol for a DOUBLE SINK.</td>
</tr>
</tbody>
</table>

TOTAL 30

ANSWER 18
Show ALL calculations.

ANSWER 19
Show ALL calculations.

EXAMINATION NUMBER

QUESTION 2: TRANSITION PIECE

Given:
The front view and the top view of a square-to-irregular four-sided transition piece.

Instructions:
Draw, to scale 1 : 1, the following views of the transition piece:
2.1 The given top view
2.2 The given front view
2.3 The development of the transition piece

NOTE:
AB is the seam.

[36]
**QUESTION 3: PERSPECTIVE**

**Given:**
Two views of an entrance with a control point 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 necessary construction.
- Show the wall thickness at the window and door.
- NO internal or hidden detail is required. [40]

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**ASSESSMENT CRITERIA**

<table>
<thead>
<tr>
<th>1</th>
<th>CONSTRUCTION + VP's</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>ROOF</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>WALLS</td>
<td>17</td>
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<tr>
<td>4</td>
<td>QUARTER-CIRCLE</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>WINDOW + DOOR</td>
<td>5</td>
</tr>
<tr>
<td>PENALTIES (+)</td>
<td></td>
<td></td>
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<tr>
<td>TOTAL</td>
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<td>40</td>
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</tbody>
</table>

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**EXAMINATION NUMBER**

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QUESTION 4: CIVIL DRAWING

Given:
- The incomplete south-west elevation of a new cottage, showing the walls, the verandah pillars, the sliding door opening, the roof and notes.
- The incomplete floor plan showing the walls, position of the verandah pillars, doors, windows, fixtures and electrical layout.
- Roof notes with a schematic diagram of a roof truss.
- Room designations and floor finish.
- Verandah pillar and beam detail.
- The incomplete foundation 'A' and verandah detail.
- The incomplete foundation and external wall detail.
- A door and window schedule.
- A table of rainwater items.
- A table of roof components.
- A table of electrical symbols.
- A table of fixtures.
- The incomplete foundation 'A' and floor plan of the new cottage, drawn to scale 1:50, on page 6.

Instructions:
- Answer this question on page 6.

4.1 Using the given incomplete floor plan, draw, in first-angle orthographic projection and to scale 1:50, the following views of the new cottage:

4.1.1 THE COMPLETE FLOOR PLAN
Add the following features to the drawing:
- All doors and windows.
- All fixtures as indicated by abbreviations.
- All electrical fittings as indicated by numbers.
- An elevation detail.

4.1.2 THE SOUTH-WEST ELEVATION
Show the following features on the drawing:
- The outside walls, verandah and sliding door detail.
- The roof detail, including the fascia board, gutter, rainwater down pipe and gully.
- The finished floor level.

4.2 Using the given incomplete foundation 'A', 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 'A' and verandah detail.
  - The complete foundation, external wall and sliding door detail.
  - The roof detail, including the fascia board and gutter.
  - All features of the verandah to the left of cutting plane A-A, including the rainwater down pipe and gully.
  - All hatching detail. Only the substructure hatching may be drawn in neat freehand.

Label the following:
- The south-west elevation.
- The room designations and floor finishes.
- Using the correct abbreviations, label the following features in the correct view: ground level and finished floor level.

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