| WOODWORKING SG |  |
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## GAUTENG DEPARTMENT OF EDUCATION <br> SENIOR CERTIFICATE EXAMINATION

WOODWORKING SG
OCTOBER / NOVEMBER 2005
OKTOBER / NOVEMBER 2005
TIME: 3 hours
MARKS: 200

## REQUIREMENTS:

- Drawing answer book 717-2X with A3 drawing paper


## INSTRUCTIONS:

- Answer ANY FIVEquestions.
- Answer all questions, drawings as well as written answers on the drawing paper.
- Use both sides of the drawing paper.
- Write your examination number in the title block.
- Drawings must be fully dimensioned and neatly finished with titles and notes, which conform to the SABS Recommended Practice for Building Drawing.
- For the purpose of this examination, a brick size should be taken as $220 \mathrm{~mm} x$ $110 \mathrm{~mm} \times 75 \mathrm{~mm}$.


## QUESTION 1

A double-storey building is to be supported on the outside by single raking shores.
1.1 Draw to a scale of 1:50 a vertical section through the outside wall of the building showing the construction of one of the shores in position.

Raking Shore $=228 \mathrm{~mm} \times 228 \mathrm{~mm}$
Needle $\quad=300 \mathrm{~mm} \times 100 \mathrm{~mm} \times 100 \mathrm{~mm}$
Cleat $\quad=200 \mathrm{~mm} \times 100 \mathrm{~mm} \times 100 \mathrm{~mm}$
Wall plate $=228 \mathrm{~mm} \times 75 \mathrm{~mm}$
1.2 Draw to a scale of 1:5 an isometric sketch of the head of one of the shores, clearly showing the method of connecting the shore, wall-plate and needle.
1.3 Draw to a scale of 1:5 an isometric sketch of the lower end of one of the shores. Clearly show how the raker, cleat, sole plate and platform of planks are connected.

## QUESTION 2

2.1 The walls of an entrance hall are flush panelled to a height of 1200 mm above the floor. The panels are made of 6 mm thick plywood, the skirting is $75 \mathrm{~mm} \times 20$ mm , the dado capping is $60 \mathrm{~mm} \times 30 \mathrm{~mm}$, rough grounds are $50 \mathrm{~mm} \times 20 \mathrm{~mm}$ and the cover strips are $22 \mathrm{~mm} \times 10 \mathrm{~mm}$.

Draw to a scale of $1: 10$
2.1.1 the front elevation of part of the panelling, approximately 1500 mm long.
2.1.2 a vertical section of the wall panel to show all the parts, from the floor up to and including the dado capping.

## QUESTION 3

Draw to a scale of $1: 10$, the front view of a double casement window with two fanlights and two casement sashes opening outwards with head of frame, frame stiles and mullion. Each sash has four $450 \mathrm{~mm} \times 250 \mathrm{~mm}$ glass panes, fitted between horizontal glazing bars. Each fanlight has only one $425 \mathrm{~mm} \times 250 \mathrm{~mm}$ glass pane.

The other components have the following dimensions:
Head of frame, frame stiles and mullion : $76 \mathrm{~mm} \times 114 \mathrm{~mm}$
Top rail of casement and fanlight: $60 \mathrm{~mm} \times 44 \mathrm{~mm}$
Sash stiles : $60 \mathrm{~mm} \times 44 \mathrm{~mm}$
Transome and weathered window sill : $76 \mathrm{~mm} \times 150 \mathrm{~mm}$
Sash bars : $30 \mathrm{~mm} \times 44 \mathrm{~mm}$
Bottom rail of sash : $76 \mathrm{~mm} \times 44 \mathrm{~mm}$
Bottom rail of fanlight : $76 \mathrm{~mm} \times 44 \mathrm{~mm}$

## QUESTION 4

4.1 List FIVE safety measures to be followed when working with a circular saw.
4.2 State FIVE safety precautions to be considered when using an emery grinder.
4.3 State FIVE essential features of formwork or shuttering.
4.4 State FIVE general safety measures to be followed when operating a bandsaw.

## QUESTION 5

5.1 Draw to a scale of 1:2, the following:


### 5.1.1 The horizontal section B-B

5.1.2 Details of the swing door and spring hinge

## QUESTION 6

6.1 A circular table with a diameter of 1300 mm has a turned pedestal leg with a maximum diameter of 150 mm , ending in a hexagon into which three matching legs are morticed. The top is 25 mm thick with an overhang of 25 mm and is finished off with a thumb mould. The table has a $75 \mathrm{~mm} \times 40 \mathrm{~mm}$ built-up rail and is covered with 3 mm plywood. Each of the three morticed legs are 40 mm thick and are fixed in such manner that they encompass a circle having a diameter of 900 mm . The total height of the table is 760 mm .

Draw to a scale of 1:10, a sectional front elevation of the table as well as a top view showing the table with part of its top removed to show the built-in railing.
6.2 Draw, to a scale of 1:1 a top view through the built-up railing and a part of the top. Show clearly the method used to connect the top and the railing.

## QUESTION 7

7.1 A straight flight of concrete stairs consists of eight steps, each with a rise of 150 mm and a tread of 280 mm . The staircase begins on a concrete floor and ends on a 900 mm wide landing, supported by an unplastered wall which is one brick thick.

Draw to a scale of 1:20, a vertical section through the length of the staircase, showing the formwork and necessary supports.


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