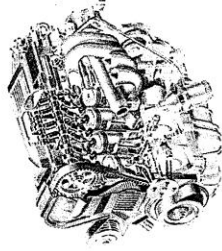
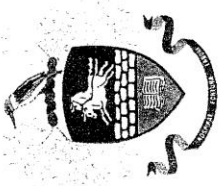
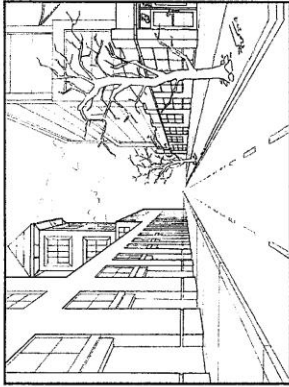


# HILLCREST HIGH SCHOOL ENGINEERING GRAPHICS AND DESIGN EXAM MIDYEAR EXAM



GRADE 11  
2019  
PAPER 1

**TIME: 2 hours**

**Examiner: Mrs Tonkin**

**MARKS: 132**  
**Moderator: Mr Victor**

**NB: READ THE INTRUCTIONS**

1. This paper consists of 5 pages including the cover page and 3 questions.
2. Answer ALL questions.
3. Take note of the mark allocation in each question.
4. The questions must be answered on the answer sheets provided.
5. All the answer sheets must be **re-stapled** in **NUMERICAL** sequence and handed in irrespective of whether the question was attempted or not.
6. Time management is essential in order to complete all the questions.
7. Print your Name in the block provided on EVERY answer sheet.
8. All answers must be drawn accurately and neatly.
9. Any details or dimensions not given must be assumed in good proportion.

QUESTION	SECTION	MARK	MODERATE	MAXIMUM
1	CIVIL ANALYTICAL			30
2	PERSPECTIVE			34
3	CIVIL DRAWING			68
<b>TOTAL</b>				<b>132</b>
<b>SYMBOL</b>				<b>100</b>

<b>NAME:</b> <b>TEACHER:</b>
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**QUESTION ONE : CIVIL ANALYTICAL**

**GIVEN :** 1. A floor plan and one elevation of a proposed dwelling and other related information.  
2. A table of questions.

**INSTRUCTIONS :** Complete the table below by neatly printing the answers to the questions.

QUESTIONS	ANSWERS
1 What is the scale of this plan?	1
2 Who is responsible for checking this plan?	1
3 Where is this company based?	1
4 What is the website address of this company ?	1
5 How old is this company ?	1
6 What does the line at A represent?	1
7 What does the arc at B represent?	1
8 What fixture is represented at C?	1
9 What is the external wall finish?	1
10 What is the fixture at D ?	1
11 What type of door is represented at E ?	1
12 What type of door is represented at F ?	1
13 What is room H known as?	1
14 What is room I known as?	1
15 What would view one be labelled ?	1
16 What would view two be labelled ?	1
17 What is the symbol at N called ?	1
18 What feature does the line L represent?	1
19 Suggest an appropriate floor finish for room H.	1
20 What type of wall is represented at G?	1
21 What indicates that the house and garage are not on the same level ?	1
22 What type of door will be fitted at point B ?	1
23 What would feature M be called ?	1
24 How many doors are there in view two ?	1
25 Draw freehand, the front view and top view of a SINK.	3
26 Calculate the Area of the TV lounge, in meters square.	3

**ANSWER QUESTION 25**

**ANSWER QUESTION 26**

NAME : \_\_\_\_\_ GRADE / DIV : \_\_\_\_\_

**30**

**SAMCO CIVIL DESIGN COMPANY (est. 1983)**  
 www.sps.co.za  
 po@sps.co.za  
 info@arch.co.za  
 21 LUTHULI AVENUE  
 MALVERN  
 4083

**PROPOSED NEW DWELLING**  
 FOR MR S. A. MOODLEY AT 14  
 MILLWAY ROAD, DURBAN.  
 SITUATED ON STAND 43A

REVISION : ONE DATE OF REVISION : 09-05-2017  
 INITIALS : DJE DATE OF PRINT : 15-07-2017  
 REVISION DETAIL : ADD EN-SUITE  
 PROJECT No. : SAM-51 SCALE = 1:100

DRAWN BY: SAM  
 CHECKED BY: MIA  
 APPROVED BY: EDD  
 REFERENCE: 2901 / PO

AUTHOR'S SIGNATURE: \_\_\_\_\_  
 CLIENT'S SIGNATURE: \_\_\_\_\_

### QUESTION TWO : TWO POINT PERSPECTIVE

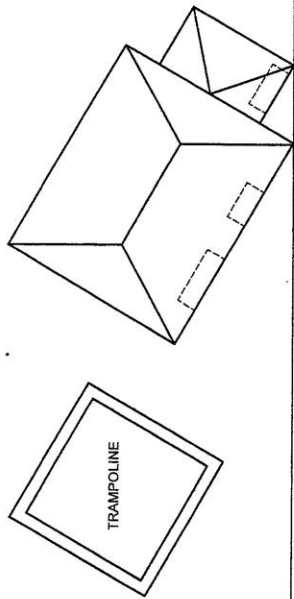
**GIVEN:**  
Two views of a dwelling, a trampoline and the information needed to draw the two-point perspective drawing.

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 constructions.
- NO hidden detail or interior detail required.

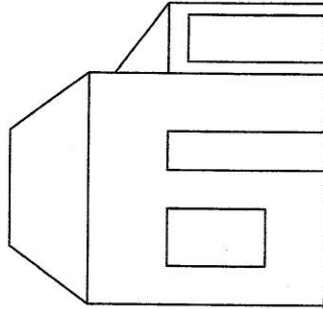


PP

HL

GL TRAMPOLINE

SP



ASSESSMENT CRITERIA	
1	CONSTRUCTION + VPs
2	ROOF
3	WALLS
4	WINDOW & DOOR
5	TRAMPOLINE
<b>TOTAL</b>	
<b>34</b>	

NAME :

GRADE

# FLOORPLAN LAYOUT QUESTION THREE : CIVIL DRAWING

- GIVEN :**
- The incomplete floor plan showing the walls, position of the windows and doors.
  - A diagram showing the room designations and floor finishes.
  - The incomplete foundation and wall detail.
  - A door and window schedule.
  - A schedule of electrical symbols.
  - A schedule of sanitary fittings.
  - The incomplete floor plan of the proposed new cottage, drawn to scale 1 : 50, on page 5.

- INSTRUCTIONS :**
- Answer this question on the answer sheet provided.
  - Using the given incomplete floor plan, draw, to scale 1 : 50 and to the specifications, the following views of the new cottage.

3.1 The complete floor plan.

3.2 A south elevation.

3.3 A sectional elevation on cutting plane B-B using a scale of 1 : 20.

- ALL drawings must comply with the guidelines and conventions contained in the SANS 0143.

**SPECIFICATIONS:**

**THE FLOOR PLAN**

- Add the following features to the drawing:
- Door and window.
  - ALL room designations and floor finishes.
  - ALL hatching detail.
  - ALL electrical features.
  - Sanitary fittings in the bathroom - bath, water closet and wash hand basin.

**THE SECTIONAL ELEVATION**

Show the following features on the drawing:

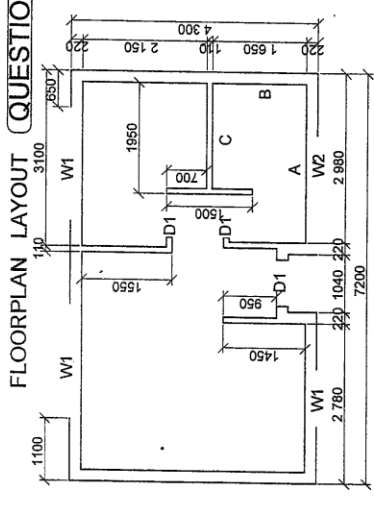
- The complete sectional elevation from sub-structure and to ceiling height.
- All visible walls.
- All hatching detail.

**Label the following:**

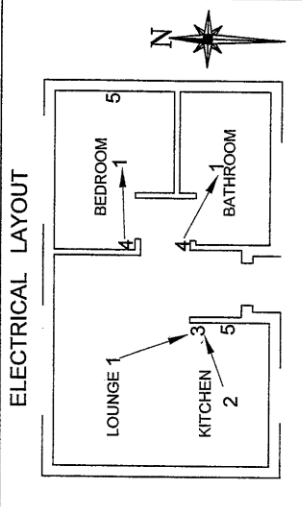
- The room designations with floor finishes
- Using the correct abbreviations, label the following features in the correct view: natural ground level, finished floor level, ceiling level and damp-proof course.

**NOTE:**

- ALL substructure hatching may be drawn freehand.



The height from FFL to CL is 2400.



**ADDITIONAL INFORMATION**

**ELECTRICAL :**  
THE ARROWS SHOW LIGHT(S) CONNECTED TO RESPECTIVE SWITCHES.

**ELECTRICAL LAYOUT**  
1 CEILING MOUNTED LIGHT  
2 2 X 45W FLUORESCENT LIGHT  
3 TWO POLE SWITCH  
4 ONE POLE SWITCH  
5 SWITCHED SOCKET OUTLET

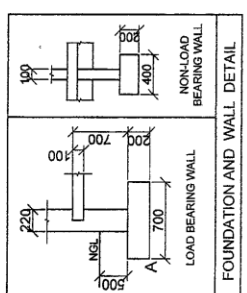
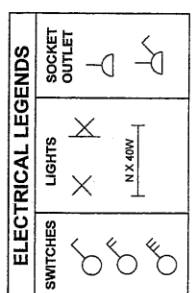
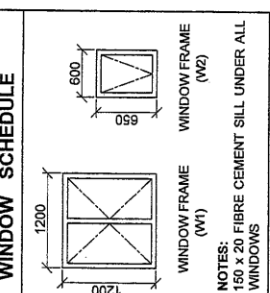
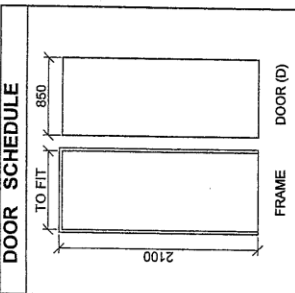
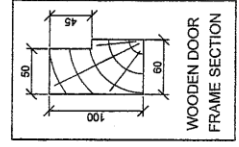
**FLOOR FINISH**  
KITCHEN - TILES  
LOUNGE - TILES  
BEDROOM - CARPET  
BATHROOM- TILES

**FIXTURES :**  
DT - HINGED DOOR OPENINGS  
W1, W2 WINDOW OPENINGS centrally positioned on the respective walls.

A WASH HAND BASIN  
B WATER CLOSET  
C BATH

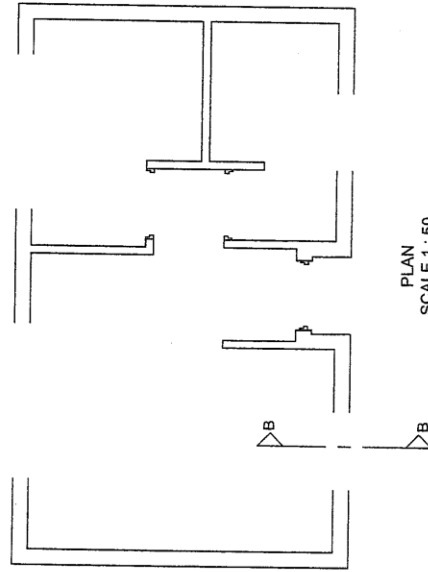
**PLUMBING FIXTURES**

<b>ACRYLIC SHOWER BASE</b> PLAN: 850 x 850	<b>WATER CLOSET</b> 550 x 450	<b>WASH BASIN</b> 500 x 700	<b>KITCHEN SINK</b> 500 x 1250	<b>BATH TUB</b> 750 x 1800	<b>BUILT IN CUPBOARD</b> 800 x 2300
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ASSESSMENT CRITERIA	
SECTIONAL ELEVATION	
1	WALLS, LINE BRK   5 1/2
2	FOUNDATION   5
3	WIND. & LINTELS   3 1/2
4	HATCHING   5
5	LABELS   3 1/2
<b>SUB TOTAL</b>   22 1/2	
FLOOR PLAN	
1	HATCHING   3
2	DOORS   3 1/2
3	WINDOWS   8
4	FIXTURES   3
5	ELECTRICAL   6 1/2
6	LABELS   6 1/2
<b>SUB TOTAL</b>   30 1/2	
SOUTH ELEVATION	
1	WALLS   3 1/2
2	WINDOWS & DOORS   9
3	LABELS   2 1/2
<b>SUB TOTAL</b>   15	
<b>TOTAL</b>   68	

NGL



PLAN  
SCALE 1 : 50

A-A