

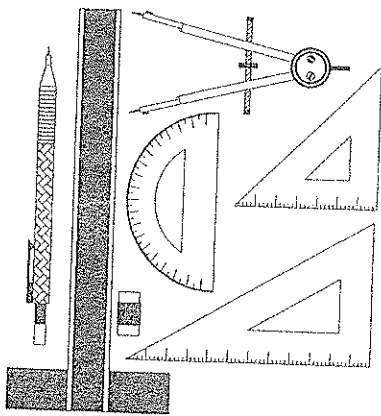
HILLCREST HIGH SCHOOL NOVEMBER EXAMINATION ENGINEERING, GRAPHICS & DESIGN

GRADE 10
2013
PAPER 1

MARKS: 100 TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of 4 pages including the cover page and 3 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, even if a stencil was used.
7. Print your NAME neatly on each page.
8. Use only the drawing sheets provided.
9. Your drawings should reflect neatness and accuracy.
10. All dimensions or detail not given may be assumed in good proportion.



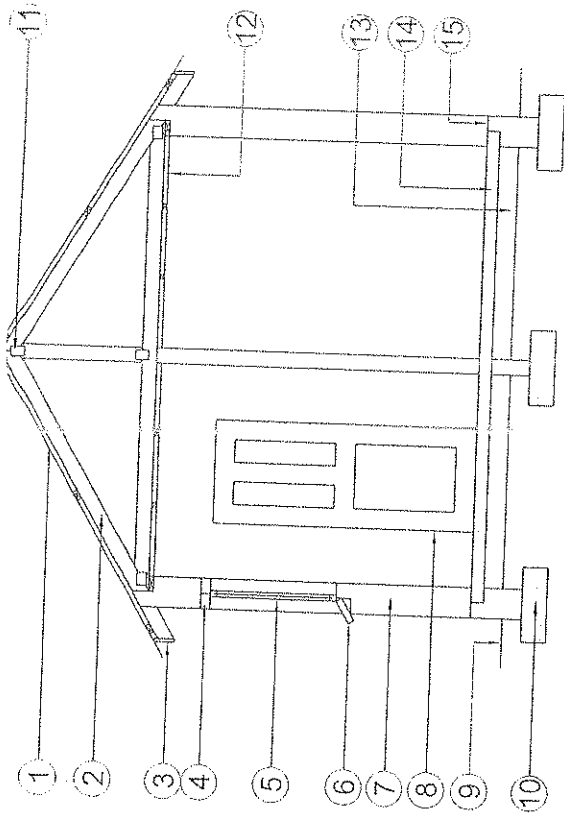
QUESTION	SECTION	MARK	MAXIMUM
1	CIVIL ANALYTICAL		30
2	TANGENTS		30
3	TRUE SHAPE & DEVELOPMENT		40
TOTAL			100
SYMBOL			

NAME

QUESTION 1.1



QUESTION 1.2



STUDY THE GIVEN DRAWING AND ANSWER THE QUESTIONS BELOW:

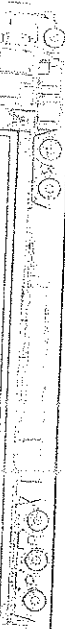
- 1.2.1. What is the feature at 1 called?
- 1.2.2. What is the feature at 2 called?
- 1.2.3. What is the feature at 3 called?
- 1.2.4. What is the feature at 4 called?
- 1.2.5. What is the feature at 5 called?
- 1.2.6. What is the feature at 6 called?
- 1.2.7. What is the feature at 7 called?
- 1.2.8. What is the feature at 8 called?
- 1.2.9. What is the feature at 9 called?
- 1.2.10. What is the feature at 10 called?
- 1.2.11. What is the feature at 11 called?
- 1.2.12. What is the feature at 12 called?
- 1.2.13. What is the feature at 13 called?
- 1.2.14. What is the feature at 14 called?
- 1.2.15. What is the feature at 15 called?

STUDY THE DRAWING AND INFORMATION GIVEN, THEN ANSWER THE QUESTIONS BELOW:

- 1.1.1. What is the feature at 1 called?
- 1.1.2. What is the feature at 2 called?
- 1.1.3. What is the feature at 3 called?
- 1.1.4. What is the feature at 4 called?
- 1.1.5. What is the feature at 5 called?
- 1.1.6. What is the feature at 6 called?
- 1.1.7. What is the feature at 7 called?
- 1.1.8. What is the feature at 8 called?
- 1.1.9. How man Rodding Eyes are there on this property?
- 1.1.10. What type of drawing is this?
- 1.1.11. What is the scale of the drawing?
- 1.1.12. What is the name of the street?
- 1.1.13. What does the abbreviation IE stand for?
- 1.1.14. What is the ERF number of the property that lies to the East?
- 1.1.15. Does this property SLOPE or is it FLAT?

NAME

ANSWER SHEET 1



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QUESTION 2
30 MARKS

TANGENTS

The figure below shows a view of a SUGAR SCOOP.

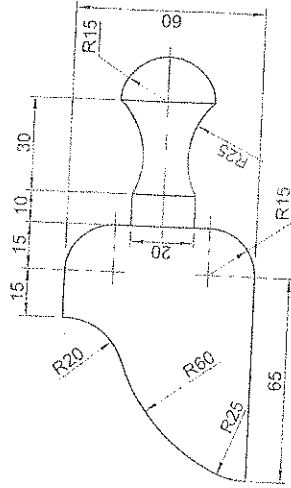
Draw the SUGAR SCOOP to the given dimensions.

Show all construction and calculation.

ASSESSMENT CRITERIA

You will be assessed on your ability to do the following:

- draw the arc centres 5
- draw the points of contact 8
- draw the arcs 6
- show all construction 6
- show all calculation 6
- draw the SUGAR SCOOP 2



SHOW YOUR CALCULATION HERE

NAME

ANSWER SHEET 2



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40 MARKS

TRUE SHAPE & DEVELOPMENT

The figure shows the front view and incomplete top view of a right regular hexagonal pyramid. The pyramid is cut by a cutting plane v-l.

Draw the following:

- 3.1. the complete sectional top view;
- 3.2. the development of the sectioned pyramid;
- 3.3. the true shape of the sectioned surface;
- 3.4. show all construction;

Marks will be deducted for poor linework and untidy drawings.

ASSESSMENT CRITERIA

You will be assessed on your ability to do the following:

TOP VIEW

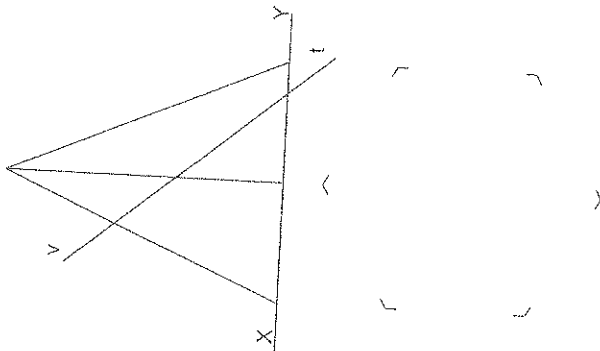
- draw the complete sectional top view 11
- X-Hatch the sectioned surface 2
- use the HOPP method to obtain certain points 3

DEVELOPMENT

- develop the sectioned surface 11
- determine the true length of the generator 4

TRUE SHAPE

- draw the true shape of the sectioned surface 6
- label the true shape 1
- X-Hatch the true shape 2



NAME

ANSWER SHEET 3