



## EXAMINER'S REPORT

<b>SUBJECT:</b>	<b>ENGINEERING GRAPHICS AND DESIGN</b>
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<b>GRADE:</b>	<b>12</b>	<b>PAPER:</b>	<b>1</b>
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<b>DATE OF EXAMINATION:</b>	<b>NOVEMBER 2008</b>	<b>DURATION:</b>	<b>3 HRS</b>
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### 1. ANALYSIS OF QUESTION BY QUESTION PERFORMANCE OF THE CANDIDATES

Give a detailed account of how the candidates performed in each question. In doing this, the following steps should be followed:

- 1.1 The aim/objective for setting the question (what skills, knowledge, values and attitudes were being tested by asking the question)
- 1.2 Relevance or relation of the question to the Los and ASs.
- 1.3 How did the candidates perform in the question?
- 1.4 Where and how did candidates lack or fail in giving an appropriate answer to score high marks in the question?

#### **QUESTION 1 (ANALYTICAL CIVIL)**

This is an analytical question testing the candidates knowledge of site plans and items contained therein. Items tested were knowledge of municipal regulations, area and perimeter calculations, building and environmental restrictions and general reading of a site plan.

This question is relevant in because it forms a vital part of knowledge needed to be proficient in civil engineering.

Most learners performed well in this question, however 75% of candidates did not get the calculation right in 19 and 20.

Many learners failed to identify the contour lines and north east elevation.

## **QUESTION 2 (Development)**

This question forms an important part of mechanical engineering in the field of sheet metal working where learners are required interpret from two orthographic views the development of the component concerned. The important skill of designing a template for manipulation by a sheet metal worker is being taught.

A good knowledge of how to determine true lengths is essential.

LO 3 and LO 4 is mostly covered here. The learner has to apply a variety of drawing skills learned in grade 11 and 12.

Most candidates only copied the two given views. Generally they did not do well in this question.

Candidates were not able to determine the true length of the folding lines. This is important for the correct development of the transition piece. The straight lines of the transition piece was attempted by most but the curved inner piece was incorrect in most cases.

Teachers have to consolidate this section of the work as a lot of marks were lost in this question.

## **QUESTION 3. (Perspective)**

The objective of this question is to test the ability of the learner to view an object from a particular perspective, thereby creating a pictorial view that is graphic and vivid. This is a vital skill in architecture and is used to give an artist impressions of the product to be manufactured.

Most learners were unable to do the roof construction relative to the given SP. This resulted in the rest of the drawing being out of position and made marking this question very cumbersome. The arch construction was left out by most learners.

Most candidates lost marks as a result of this.

## **QUESTION 4 (CIVIL)**

A thorough knowledge of civil plans and sectional views of houses was tested in this question. Candidates had to be familiar with application of sectioning, door and window details, electrical symbols, roof construction and labelling of features.

This question is a culmination of work covered in grade 10, 11, and 12 and carries the most marks. LO3 and LO4 was extensively covered in this question.

Most candidates attempted this question and achieved quite good marks considering the size of the question.

Marks were forfeited in the following areas:

- Labelling in sectional view
- Sectioning of substructure
- Lintel not inserted
- Incorrect window sill detail

Most candidates did not draw the roof construction to scale because of the small size of purlins, branding and wallplate after scaling.

Plugpoints and light bulbs were often placed in the wrong positions.

The doorframe profile in the top view was too small to check detail.

**7. ANY ADVICE THAT YOU COULD GIVE TO EDUCATORS IN HELPING THE LEARNERS TO REACH THE EXPECTED LEVEL.**

Because this is a new subject teachers have to acquire a variety of text books dealing with the changed content.

Cluster meetings must be used by teachers to exchange ideas about areas of concern in the subject.

Competent subject advisors must be appointed to help schools who consistently produce poor results.

Teachers have to stick to the pacesetters to ensure that they complete the syllabus in good time.

Learners must be encouraged to practice at home as much as possible to increase their general speed.

The exemplars and provincial papers must be thoroughly worked through as this is an ideal preparation for the final exam.

**8. ANY OTHER COMMENTS**

**Markers comments**

- Markers found half mark allocation tedious and very slow marking.
- Question 2 and 3 did not have adequate space provided on answer sheet for inserting marks obtained
- Question 4 was very slow marking because of the small scale used for fine detail like brandering, purlins, wallplate and dpc
- The construction lines on question 3(perspective) was very congested and the answer did not stand out clearly
- Memorandums for examiners arrived three days after reporting to the marking centre making it difficult for examiners and senior markersto get through marking their own scripts and oversee the marking process.

**SIGNATURE OF EXAMINER/MODERATOR:** \_\_\_\_\_



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