

GENERAL

Mapwork is fundamental to Geography and needs to be taught in all grades so that by the time students write the final matriculation examination they are fully familiar with the skills and interpretation techniques required to master this paper.

Teachers must emphasize the theory of Paper 1 and the practical nature of Paper 2. Concepts and terminology must be drilled. In general, candidates were not in command of the required geographical knowledge and terminology. It is recommended that teachers use *SA Landscape* when dealing with theory. The foundation for mapwork skills must be established in Grades 8 & 9.

Teachers must include multiple-choice questions in CASS activities and examinations throughout the year, as well as in Grades 8 – 11.

Teachers must follow the example of national examination question papers when they set internal papers.

Aspects tested

Use of the legend (conventional signs) to identify physical features

Location of the orthophoto and the topographical map

Gradient

Vertical exaggeration

Area

Cross-sections

Use of contours to determine height

It is vital that the skills associated with the above be continually practised throughout the year, using topographical maps and orthophotos to prepare the candidates thoroughly.

Interpretation skills tested

Candidates need to be able to relate to and interpret the topography of the mapped area and how the physical layout influences the location of settlements, infrastructure and developments in the area. Applying their theoretical knowledge of stream channel pattern identification is important.

Candidates who do not speak the language of teaching and learning really struggled with the interpretive questions and many scored no marks in some sections, especially Question 4.

COMMENTS ON THE QUESTIONS**Question 1- Multiple Choice Questions**

These questions were generally well answered. Candidates must 'tick in the box'. Encourage candidates to make an educated guess when they do not know the answer. Too many candidates lost marks in this section and did not follow the instructions as to how to answer the question. Some candidates did not attempt these questions at all. Many candidates did not have the necessary skills to answer questions from the orthophoto map.

Question 2 - Calculations

This was the worst-answered section. Teachers should be encouraged to teach all calculations to their candidates as early as Grade 10. Revision work should be continual in the FET Phase so as to maintain skills. Most centres did not even attempt the calculations. Those who did attempt them were seldom able to convert **cm** to **m**.

Candidates also did not measure accurately and tended to round off any measurements. It is suggested that all measurements be taken to 1 decimal place. This will avoid marks being lost if their answers do not fall within the required range. Candidates must also show all working, as part marks are awarded for working if the answer is incorrect. Candidates were penalized for not using any units in their calculations. Candidates confused the formulas for the calculation of gradient and vertical exaggeration.

Twenty marks are awarded for map skills and techniques, which included calculations related to area, vertical exaggeration, magnetic bearing and declination, average gradient, and distance. In this section answers must be derived from calculations.

Answering this section requires the following equipment, which must be brought into the exam by the candidate: CALCULATOR, PENCIL, RULER, PROTRACTOR, STRING, ERASER.

Question 3

- 3.1.1 Candidates must be taught to extract information from the maps.
- 3.1.2 Candidates could identify the general direction of rivers.
- 3.1.3 Teachers must teach candidates to identify heights on maps in order for them to distinguish the direction of rivers. Answers should be more specific, not just **"From high to low"**.
- 3.1.4 Candidates confused stream channel patterns with stream patterns.
- 3.2.1 Generally well answered, but candidates gave examples of economic activities instead of the name of the economic activity.
- 3.2.2 Candidates must apply the theory to the mapwork paper
- 3.3.1 Answered very well.
- 3.3.2 Candidates must be taught that there are more reasons for the location of a land-use site than just availability of land and cheap cost of land. They must learn to relate the reasons for the location to the activity.

- 3.4.1 Answered well enough.
- 3.4.2 Answered well.
- 3.4.3 If answers are not on the maps, candidates should look at roads and railway lines on the borders of the maps.
- 3.5.1 Candidates must know their economic activities and use the conventional signs at the bottom of the topographical map.
- 3.5.2 Well answered.
- 3.6.1 Candidates must study both maps in order to find the answers.
- 3.6.2 Although the answers could be found on both maps, candidates did not display prior knowledge and therefore this question was poorly answered.
- 3.7 Map and orthophoto interpretation is very important. The scale of the orthophoto is larger. The rifle range was confused with a landing strip.

Question 4

- 4.1 Theoretical knowledge of GIS is still very limited. The meanings of all GIS terms must be taught from Grade 10.
- 4.2.1 Candidates confused the question with the definition of GIS.
- 4.2.2 Many candidates could answer this question as the evidence was clearly displayed on the map.
- 4.2.3 Candidates indicated the uses of GIS rather than the uses of data layering. They must learn to study sketches in the question paper.
- 4.3.1 Not well answered. The area was encircled on the map, but candidates struggled to deduce the answer from the map.
- 4.3.2 Not well answered.
- 4.3.3 Candidates confused the 'feeder zone' with a 'feeding scheme'. Candidates did not refer specifically to the advantages for the school.

RECOMMENDATIONS FOR TEACHERS

- Candidates must draw a line through an incorrect answer and then rewrite the answer after it. Candidates often wrote over the incorrect answer, making it difficult to mark.
- Teach candidates to take time to familiarise themselves with the map and the photo.
- Stress the importance of reading and understanding/interpreting the questions before attempting to answer, i.e. understanding instructions like *state*, *list*, *describe* and *explain*.
- Candidates must write their answers in full sentences, rather than just give one-word answers, as the terminology they use is often incorrect.
- Reinforce use of correct terminology, e.g. *spatial data*, *attribute data*, *stream channels*.
- Include units in answers, e.g. *cm*, *km*, *mm*. Marks are deducted if not included.
- In the case of the calculation of gradient, the answer must be expressed as a ratio or fraction, not a whole number.
- With the calculation of vertical exaggeration, the candidate must indicate times (X) in the answer.
- The formulas and techniques of calculations must be learnt. The formula must always be stated.
- Definitions must be fully explained, using more than a single word.
- Candidates must look at the mark allocation for guidance, and at the number of lines allocated to the answer.
- By the end of Grade 11, all mapwork skills must have been taught because of time constraints in Grade 12.
- When asked to provide proof of an answer, the candidate must always provide evidence from the map or photograph, if the question warrants it.
- We recommend that a glossary of "instruction words", e.g. *describe*, *account for*, *analyse*, be included in the internal papers.
- **HINT:** Let the candidates work through previous question papers regularly and then discuss their answers with them.