

MAPWORK QUESTIONS



Check List

Make sure you...

- Are able to interpret:
 - Oblique and vertical aerial photographs
 - Orthophoto Maps
 - Topographic Maps
- Are familiar with:
 - The concept of GIS
 - Different types of data used in GIS
 - The concept of remote sensing
 - The capturing of different types of data
 - Data manipulation



Exam Questions

Question 1

Refer to the town of Harrismith on the topographical map and orthophotograph.

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|-----|---|-------------|
| 1.1 | The town of Harrismith has existed for over 100 years. Identify one piece of evidence from the map to support this statement. | (1 x 1) (1) |
| 1.2 | Give a reason for the location of the sewage works in block B6 | (1 x 1) (1) |
| 1.3 | Identify the fluvial landform labelled F. | (1 x 1) (1) |
| 1.4 | Identify the landform labelled E. | (1 x 1) (1) |
| 1.5 | The southern part of the map is a suitable location for agriculture. Discuss this statement using supporting evidence from the map. | (2 x 1) (2) |
| 1.6 | The hill named Platberg in the north east section of the map is an example of a mesa. Draw a sketch to illustrate what a mesa looks like from the side. | (2 x 1) (2) |
| 1.7 | Describe the rock structure of a mesa | (1 x 1) (1) |
| 1.8 | Locate Bakers Kop in blocks E4 and E5, and F4 and F5. Draw a labelled sketch to illustrate the four slope elements in E5 from Δ3 to the reservoir. | (4 x 1) (4) |
| 1.9 | Refer to block D6 on the topographical map. | |
| (a) | In which direction is the Nuwejaarspruit river flowing | (1 x 1) (1) |
| (b) | Give a reason for your answer to QUESTION 1.9 (a) | (1 x 1) (1) |

Refer to the orthophoto

- | | | | |
|------|-----|---|-------------|
| 1.10 | (a) | At what time of the day was the photograph taken. | (1 x 1) (1) |
| | (b) | Give one reason for your answer to QUESTION 1.10 (a) | (1 x 1) (1) |
| | (c) | With reference to the topographical map and orthophotograph suggest why this map is showing a dry season. | (1 x 1) (1) |



Refer to the N3 on the topographical map and orthophoto.

- 1.11 (a) What is the advantage of the N3 not passing through Harrismith? (1 x 1) (1)
- (b) What is the disadvantage to the businesses of Harrismith of the route followed by the N3? (1 x 1) (1)

Refer to Wilgerpark on the topographical map and orthophoto.

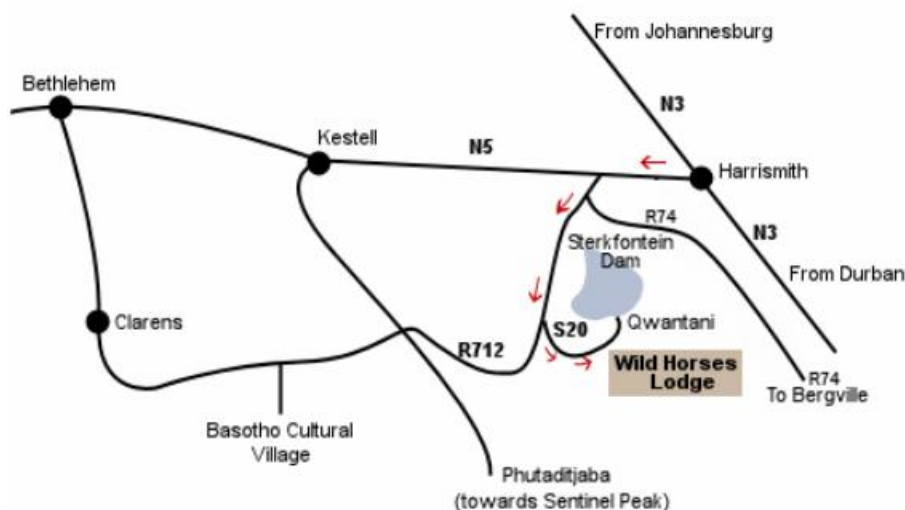
- 1.12 (a) What type of residential settlement is Wilger park? (1 x 1) (1)
- (b) Was this settlement built before or after the town of Harrismith? (1 x 1) (1)
- (c) Give one advantage of the location of Wilger park. (1 x 1) (1)

Question 2

- 2.1 What does the term data layering mean. (1 x 1) (1)
- 2.2 Name TWO layers of information that can be identified in block J2. (1 x 1) (1)
- 2.3 Study the photograph of the N3 that bypasses Harrismith on route to Durban



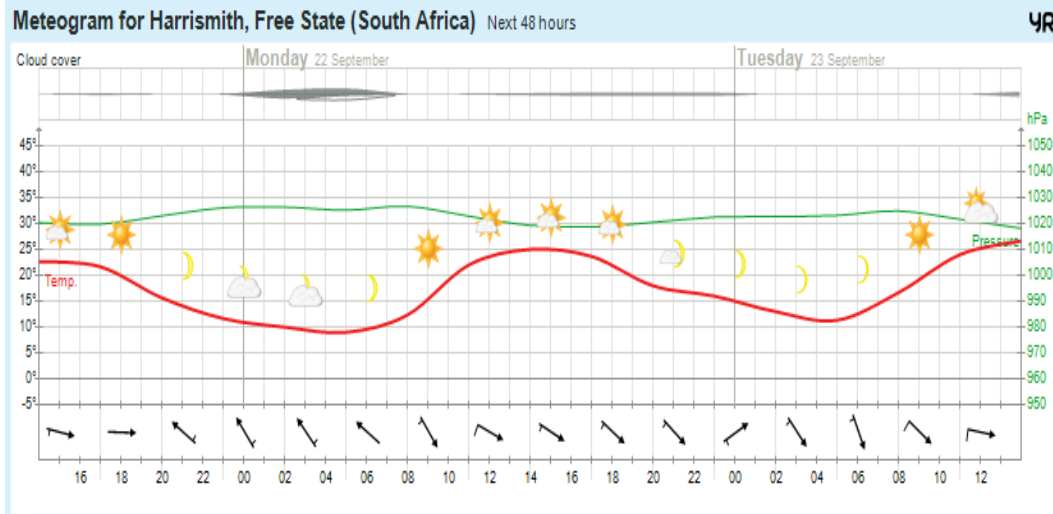
- (a) What is spatial data? (1 x 1) (1)
 - (b) What type of spatial object is the road? (1 x 1) (1)
 - (c) Suggest an attribute that you would capture when using this photograph in a GIS. (1 x 1) (1)
- 2.4 Study the map which shows the proposed location of the Wild Horses Lodge to south west of Harrismith.





- (a) Name TWO data layers visible on the map (2 x 1) (2)
- (b) GIS is useful in planning the location of resorts such as the Wild Horses Lodge. Explain how local authorities can be assisted in using a GIS to plan such land uses. (2 x 1) (2)

2.5 Study the graph below which shows the weather conditions for Harrismith.



- (a) What is attribute data? (1 x 1) (1)
- (b) Suggest TWO attribute provided by the graph. (2 x 1) (2)
- (c) Explain how agricultural activities in Harrismith can benefit from these attributes. (2 x 1) (2)

