

# Study & Master

Support Pack | Grade 12

CAPS

# Geography

## Climatology and geomorphology - skills and techniques

This support pack for the **Climatology and geomorphology - skills and techniques** topic in the **Geography Grade 12 CAPS curriculum** provides valuable practical activities. All activities have the answers provided. Learners can work through these individually at home or these could form the basis of a catch-up class or online lesson. You have permission to print or photocopy this document or distribute it electronically via email or WhatsApp.

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# Climatology and geomorphology – skills and techniques

## QUESTION 1

Choose the correct underlined word or phrase for each statement. Write down only the question number and the underlined word.

1. Topographical maps are drawn to a scale of 1:10 000/1:50 000/1:1000 000/1:1 000 000.
2. Orthophoto maps are produced to a scale of 1:10 000/1:50 000/1:1000 000/1:1 000 000.
3. With a vertical aerial photo, the angle between the camera lens and the ground directly below it is 90°/180°/270°/360°.
4. Latitude and longitude show altitude/distance/position/humidity on a topographical map.
5. Magnetic declination shows the compass deviation from true north/magnetic north/true south/magnetic south.

(5×2)  
[10]

## QUESTION 2

Choose whether the statement is True or False. Write down only the question number and 'T' or 'F'.

1. Synopsis means 'summary'.
2. Synoptic charts are used for weather forecasting.
3. Cross-sections usually have an exaggerated horizontal scale.
4. A grid can help to pinpoint your position on a map.
5. If point X can be seen from point Y in the landscape, we say that they are not intervisible.

(5×2)  
[10]

## QUESTION 3

Write a paragraph in which you explain what the term GIS means, what we mean by 'layers' in a GIS, and why GISs are so useful in geography.

[10]

## QUESTION 4

Refer to the topographical map extract (not to scale) in Figure 3.25 and Figure 9.6 on the following page and then answer these questions.

1. What title is the map likely to have? (2)
2. What are the coordinates (latitude and longitude) at the centre of the Royal Port Alfred Golf Course (indicated by an arrow)? (2)
3. Roughly what is the distance to East London, by road? (2)
4. Is this a rocky or a sandy coastline? Explain your answer. (2)
5. Does the Kowie River show evidence of braiding or of meandering? Explain your answer. (2)
6. What evidence is there that the Kowie River is deeply incised? (2)
7. Which area is more undulating: to the east or to the west of the R67 road? (2)
8. Is there any evidence that the area gets enough rain for agriculture? (2)
9. What evidence is there that Port Alfred is a holiday resort? (2)
10. What is the highest point on the map? (2)

[20]

[Total: 50 marks]



Figure 3.25 Topographical map extract (Refer to Figure 9.6 below.)

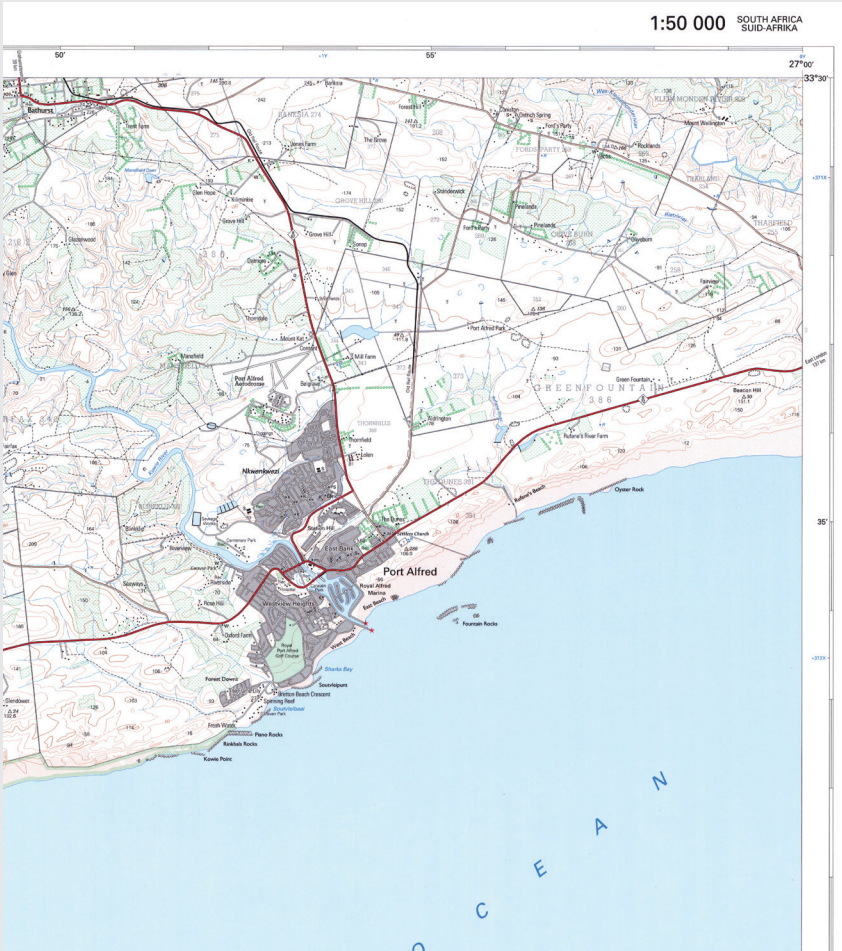


Figure 9.6 Topographical map extract (Refer back to Figure 3.25 above.)

## Answers

### QUESTION 1

- 1: 50 000 ✓✓
- 1: 10 000 ✓✓
- 90° ✓✓
- position ✓✓
- true north ✓✓

(5×2)

[10]

### QUESTION 2

- T ✓✓
- T ✓✓
- F ✓✓ (the vertical scale is exaggerated)
- T ✓✓
- F ✓✓ (the points are intervisible)

(5×2)

[10]

### QUESTION 3

GIS stands for 'Geographical Information System' ✓. A GIS is a computer program specially designed to show spatial (place) ✓ and temporal (time) ✓ data in a visual form (i.e. a map) ✓. Raster data represents the landscape in the form of individual pixels on a map ✓. Vector data represents features as points, lines and polygons ✓. Each layer in the GIS will represent a different aspect of the landscape ✓, such as (for a physical map) geology, soil, slope and rainfall ✓. By combining these layers, choices can be made ✓; for example, about the best land use in the area covered by the GIS maps ✓.

[10]

### QUESTION 4

- 3326DB Port Alfred ✓✓ (2)
- 33°36'30"S ✓ 26°53'05"E ✓ (2)
- 137 km + 12 km = 149 km ✓✓ (2)
- It is both rocky and sandy ✓. There is evidence of rocks (e.g. Oyster Rock), but also of plenty of sandy beaches ✓. (2)
- Meandering ✓. There are loops and meanders in the river ✓. (2)
- Contours along the river are closely spaced ✓. There are no wide floodplains ✓. (2)
- Undulating means 'uneven'. The landscape to the west of the R67 road shows more contours, and is more uneven ✓✓. (2)
- Yes ✓. There are ploughed lands under cultivation ✓. (This is an important area of pineapple production). (2)
- Any two: boat marina ✓; beaches ✓; golf course ✓ (2)
- The highest point is a spot height of 306 metres ✓ in the extreme north of the map, to the east of Bathurst ✓. (2)

[20]

[Total: 50 marks]