



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOG.1

GEOGRAPHY P1

NOVEMBER 2021

MARKS: 150

TIME: 3 hours

This question paper consists of 19 pages.

AFTERNOON SESSION



INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO SECTIONS:

SECTION A:
QUESTION 1: Climate and Weather (60)
QUESTION 2: Geomorphology (60)

SECTION B:
QUESTION 3: Geographical Skills and Techniques (30)
2. Answer all THREE questions.
3. ALL diagrams are included in the QUESTION PAPER.
4. Leave a line between the subsections of questions answered.
5. Start EACH question at the top of a NEW page.
6. Number the answers correctly according to the numbering system used in this question paper.
7. Do NOT write in the margins of the ANSWER BOOK.
8. Draw fully labelled diagrams when instructed to do so.
9. Answer in FULL SENTENCES, except when you have to state, name, identify or list.
10. Units of measurement MUST be indicated in your final answer, e.g. 1 020 hPa, 14 °C and 45 m.
11. You may use a non-programmable calculator.
12. You may use a magnifying glass.
13. Write neatly and legibly.

SPECIFIC INSTRUCTIONS AND INFORMATION FOR SECTION B

14. A 1 : 50 000 topographic map 2331CC PHALABORWA and a 1 : 10 000 orthophoto map 2331 CC 18 PHALABORWA (NORTH) are provided.
15. The area demarcated in RED/BLACK on the topographic map represents the area covered by the orthophoto map.
16. Show ALL calculations. Marks will be allocated for this.
17. You must hand in the topographic and the orthophoto map to the invigilator at the end of this examination session.

SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY**QUESTION 1: CLIMATE AND WEATHER**

1.1 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question numbers (1.1.1 to 1.1.8) in the ANSWER BOOK, e.g. 1.1.9 D.

1.1.1 A mid-latitude cyclone occurs b e t w e e n north and south of the equator.

- A 5° and 25°
- B 30° and 60°
- C 0° and 5°
- D 60° and 90°

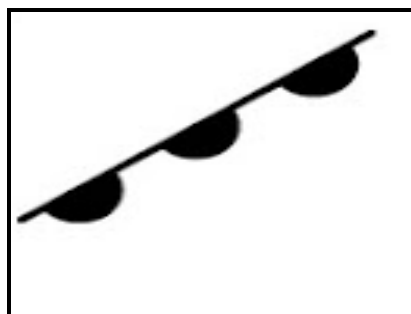
1.1.2 A mid-latitude cyclone is steered (driven) b y t h e

- A easterlies.
- B polar easterlies.
- C trade winds.
- D westerlies.

1.1.3 The change in wind direction of the mid-latitude cyclone in the Southern Hemisphere is called

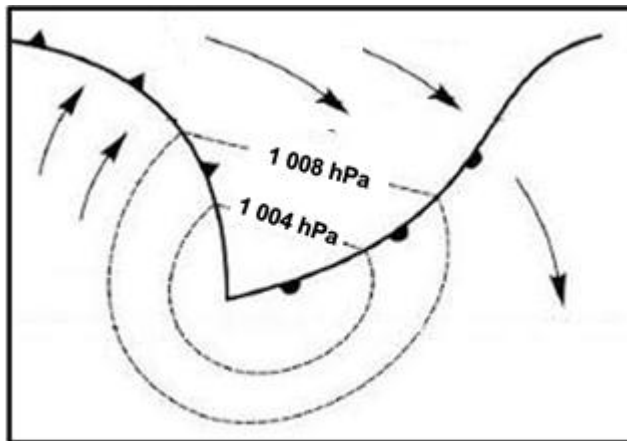
- A veering.
- B backing.
- C rotating.
- D converging.

1.1.4 The front b e l o w i s . a



- A cold
- B occluded
- C warm
- D stationary

1.1.5 The mid-latitude cyclone below is in the _____ stage.



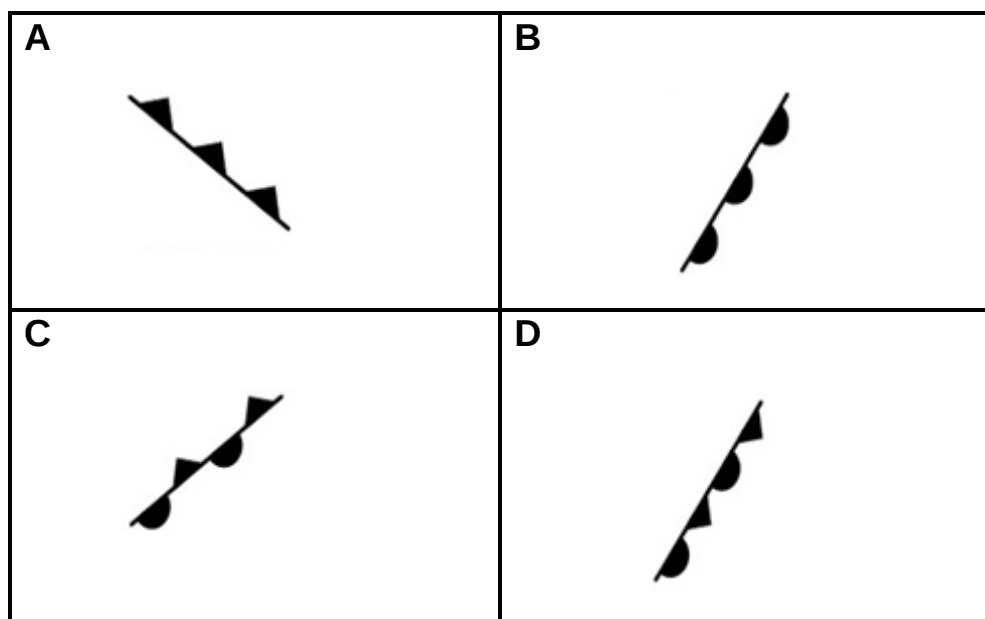
[Source: <https://www.google.com/search?q=mid-latitude>]

- A initial
- B wave
- C mature
- D occluded

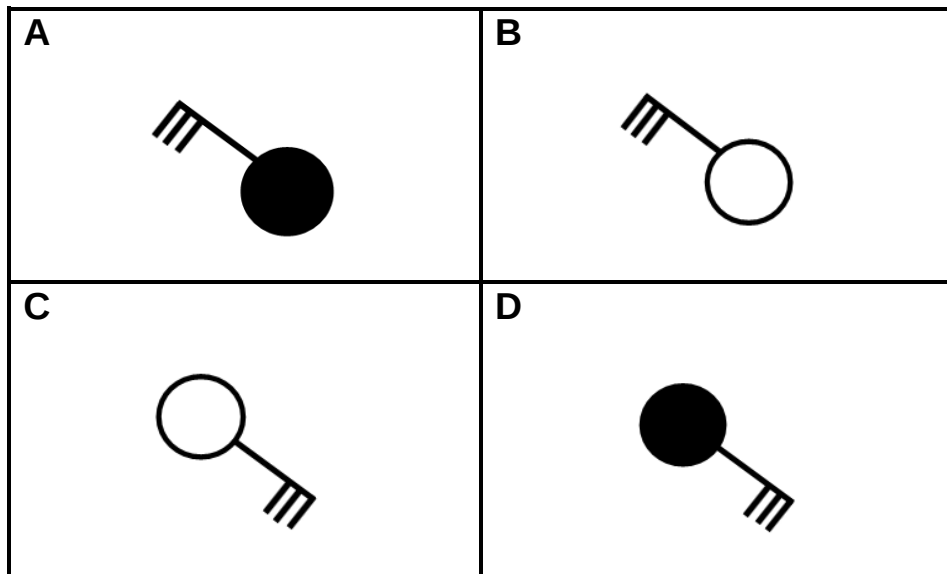
1.1.6 The conditions experienced behind a cold front are a/an _____

- A increase in pressure and decrease in temperature.
- B decrease in pressure and decrease in temperature.
- C increase in pressure and increase in temperature.
- D decrease in pressure and increase in temperature.

1.1.7 Which symbol below illustrates the merging of a cold and warm front?



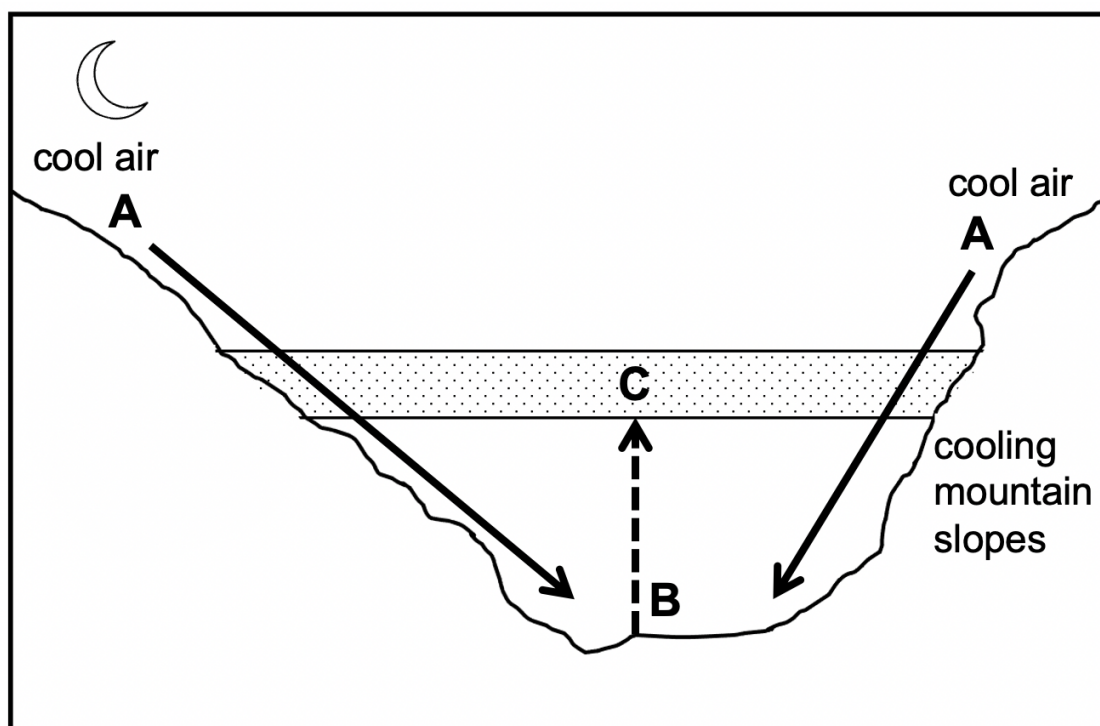
- 1.1.8 The station model generally associated with a cold front in the Southern Hemisphere:



(8 x 1)

(8)

- 1.2 Choose the correct word(s) from those given in brackets. Write only the word(s) next to the question numbers (1.2.1 to 1.2.7) in the ANSWER BOOK.



[Source: Examiner's own sketch]

- 1.2.1 Air at **A** cools because of (solar/terrestrial) radiation.
- 1.2.2 Downward movement of air along the valley slopes occurs during the (night/day).
- 1.2.3 Air movement from **A** to **B** results in a/an (anabatic/katabatic) wind.
- 1.2.4 Dew point temperature drops to below freezing point at (**A/B**) at night.
- 1.2.5 Precipitation that forms at **B** when the dew point temperature drops below 0 °C is (frost/radiation fog).
- 1.2.6 Displaced air from the valley results in a/an (inversion layer/thermal belt) developing at **C**.
- 1.2.7 Layer **C** is more developed during the (day/night). (7 x 1) (7)

1.3 Refer to the infographic on Tropical Cyclone Eloise.

DESCRIPTION OF THE DISASTER	ELOISE IN NUMBERS				
Tropical Cyclone Eloise made landfall on 23 January 2021, 20 km south of Beira in Mozambique, as a category 2 tropical cyclone. Wind speeds of up to 160 km/h were recorded. Tropical Cyclone Eloise also caused heavy rainfall with 250 mm of rain in 24 hours. Other areas were already flooded ahead of Eloise's landfall, resulting in thousands of displaced people.	<table border="1"> <tr> <td>Affected</td><td>441 686 people</td></tr> <tr> <td colspan="2" rowspan="4"></td></tr> <tr></tr> <tr></tr> <tr></tr> </table>	Affected	441 686 people		
Affected	441 686 people				
					

- 1.3.1 Give ONE piece of evidence in the infographic that the tropical cyclone is in the Southern Hemisphere. (1 x 1) (1)
- 1.3.2 State TWO weather conditions associated with tropical cyclones indicated in the infographic. (2 x 1) (2)
- 1.3.3 Give ONE reason for the decrease in wind speed from 19 January to 20 January 2021. (1 x 2) (2)
- 1.3.4 Account for the increase in wind speed of Tropical Cyclone Eloise from the 20 January to 22 January 2021. (2 x 2) (4)
- 1.3.5 According to the infographic the negative impact of Tropical Cyclone Eloise was devastating. Suggest THREE strategies that could be put in place to reduce this impact. (3 x 2) (6)

