education

Department of Education
FREE STATE PROVINCE

GEOGRAPHY

TEST ONE

Stanmorephysics.com

GRADE: 12

MARCH 2026

Stanmorephysics.com

MARKS: 60

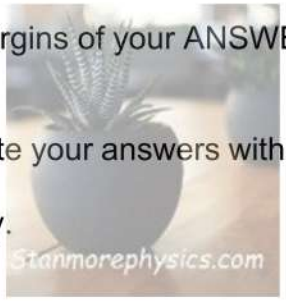
TIME: 1 HOUR

This question paper consists of 7 pages.

Copyright reserved

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Answer the paragraph questions in the form of a paragraph.
3. ALL diagrams are included in the QUESTION PAPER.
4. Leave a line between subsections of questions answered.
5. Number the answers correctly according to the numbering system used in this question paper.
6. Do NOT write in the margins of your ANSWER BOOK.
7. Where possible, illustrate your answers with labelled diagrams.
8. Write clearly and legibly.



Copyright reserved

QUESTION 1

1.1 Give One term for each of the following descriptions by choosing the term from the list below. Write on the term next to the question numbers (1.1.1 to 1.1.7), for example 1.1.8 Kalahari

frost pocket, thermal belt, radiation fog, anabatic wind, slope aspect, temperature inversion, advection fog, katabatic wind, isotherm.

1.1.1 A type of wind that results from air moving up the valley slope during the day

1.1.2 Forms at night under clear, calm condition

1.1.3 An area where warm air is trapped between two colder air masses

1.1.4 The term used to describe an increase in temperature as height increases

1.1.5 A type of wind that results from air moving down the valley at night

1.1.6 In the Southern Hemisphere, north-facing slopes receive more direct sunlight than south-facing slopes.

1.1.7 Occurs when the temperature of cold air on the valley floor drops to below freezing point

(7x1) (7)

Copyright reserved

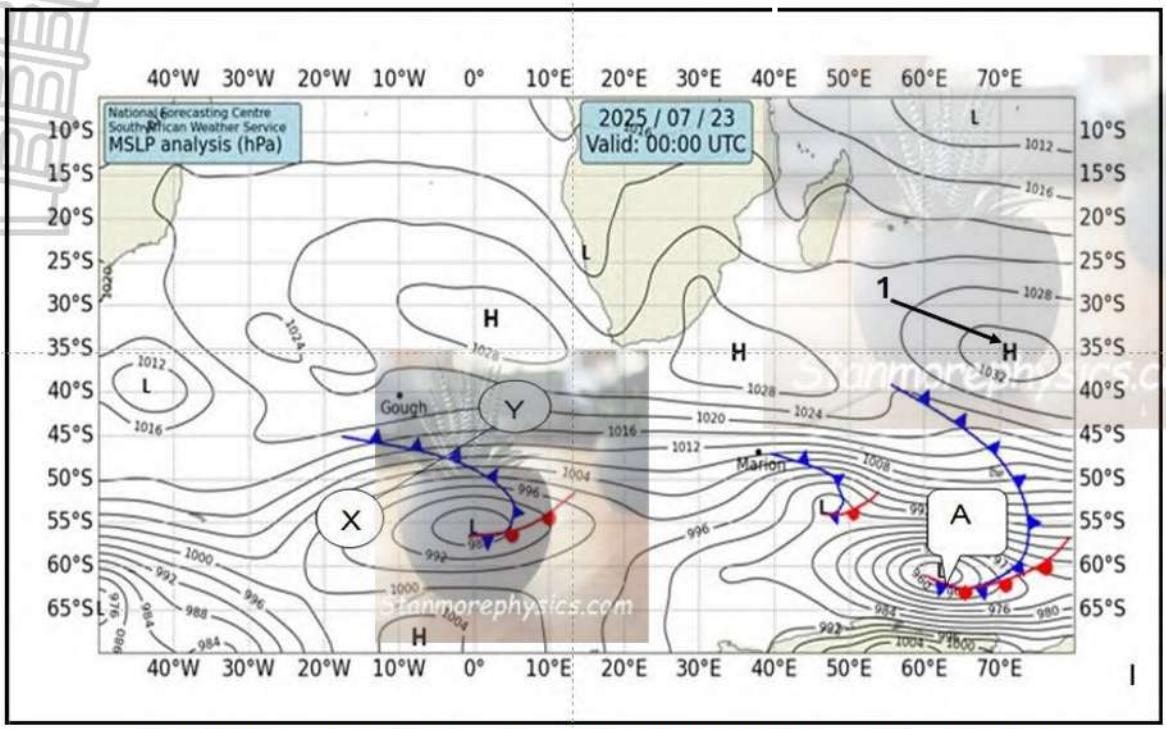
1.2
Choose the correct drainage pattern from COLUMN B that matches the descriptions in COLUMN A. Write only the letter of the correct answer next to question number e.g. 1.2 Z.

	COLUMN A	COLUMN B
1.2.1	Where underlying rock structure is uniformly resistance to erosion	**Y** Trellis **Z** Dendritic
1.2.2	Underlying rock structure with alternating bands of hard and soft rock	**Y** Trellis **Z** Dendritic
1.2.3	This drainage pattern is common in areas with volcanoes, hills or domes	**Y** Centripetal **Z** Radial
1.2.4	Short tributaries joining the main streams at right angles	**Y** Trellis **Z** Rectangular
1.2.5	Streams flowing into a central pan or low-lying area	**Y** Radial **Z** Centripetal
1.2.6	Forms on igneous rock that has joints and cracks	Y Parallel Z Rectangular
1.2.7	Develops on a land surface that was covered by ice sheet or glacier	Y Trellis Z Deranged
1.2.8.	Develops on a surface that slopes uniformly and is fairly steep	Y Parallel Z Rectangular

(8x 1) (8)

Stanmorephysics.com

1.3 Refer to the sketch below showing the mid-latitude cyclone on a synoptic weather map of Southern Africa.



Source: https://afriwx.co.za/images/synoptic-chart-weather-south-africa.jpg

1.3.1 During which season does the mid-latitude cyclone affect South Africa? (1x1) (1)

1.3.2 Why does the mid-latitude cyclone have a great impact in South Africa during the season mentioned in QUESTION 1.3.1? (1x2) (2)

1.3.3 Draw a free hand cross section through X and Y. Indicate the following: (4x1) (4)

(i) Front
(ii) Cold air
(iii) Cloud type

1.3.4 How does the high pressure cell at **1** influence the direction of midlatitude cyclones? (1x2) (2)

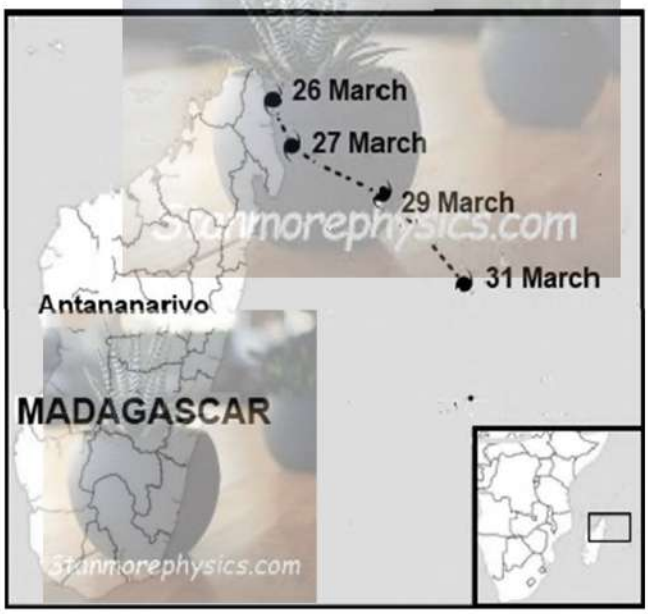
1.3.5 Explain how the stage at **A** in a midlatitude cyclone is reached. (3x2) (6)

[15]

Copyright reserved

1.4 Refer to the infographic below on Tropical Cyclone Gamane.

PATH TAKEN BY TROPICAL CYCLONE GAMANE



[Source: GDACS,METEO Madagascar]

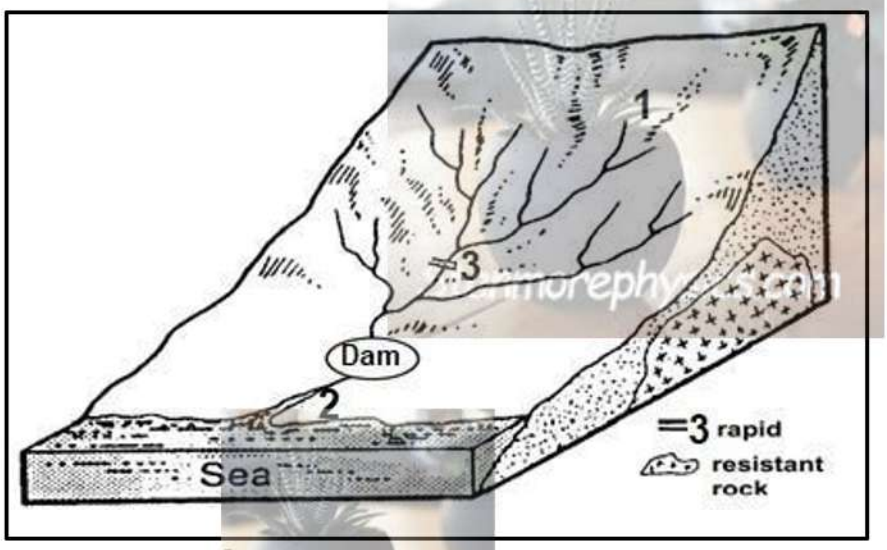
Tropical Cyclone (TC) Gamane made landfall in the Ampisikinana Commune, Sava Region, bringing heavy rains and floods to the north and north-east, on 27 March. The ninth tropical depression system of the current cyclone season began developing along the north-eastern coast of Madagascar on 25 March. Some districts in the north-east have received heavy rainfall over the past few days, the Sambava district recorded 300 mm of rain on 26 March alone. Madagascar issued a red alert for imminent danger in the Diana and Sava regions; and a yellow alert of menace in the Ambatosoa and Analanjirofo regions on 27 March.

[Adapted from *UN office for the coordination of Humanitarian Affairs, accessed on 19 November 2024*]

1.4.1	When did Tropical Cyclone Gamane make landfall, according to the infographic?	(1x1)	(1)
1.4.2	What is the difference between the eye and the eyewall of a tropical cyclone?	(1x2)	(2)
1.4.3	Explain why warm oceans are necessary for the formation of Tropical cyclone Gamane.	(2x2)	(4)
1.4.4	In a paragraph of approximately EIGHT lines, discuss the precautionary measures that can be taken to minimize the impact of Tropical Cyclone Gamene	(4x2)	(8)
			[15]

Copyright reserved

1.5 Refer to the diagram showing river grading



[Adapted: hydrology and Landforms]]

1.5.1 Define the concept base level of erosion. (1x2) (2)

1.5.2 Identify **ONE** temporary base level of erosion in FIGURE 1.5. (1x1) (1)

1.5.3 Draw a labelled longitudinal profile of the river illustrated on the diagram, clearly showing how the temporary base levels of erosion could have influenced the shape of the profile. (4x1) (4)

1.5.4 Comment on the shape of the longitudinal profile that you have drawn in QUESTION 1.5.3. (1x2) (2)

1.5.5 Describe the processes that a river undergoes to be graded. (3x2) (6)

[15]

TOTAL: 60