ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Advanced Level

GEOGRAPHY 6037/1

PAPER 1

SPECIMEN PAPER 3 hours

Additional materials:
Answer paper

TIME 3 hours

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer any **four** questions in this paper.

Write your answers on the separate answer paper provided.
If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.

Sketch maps and diagrams should be drawn wherever they serve to illustrate an answer.

You are reminded of the need for good English and clear presentation in your answers.

This question paper consists of 4 printed pages.

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[Turn over

Answer any **four** questions.

1 **(a)** The diagram below shows atmospheric instability.

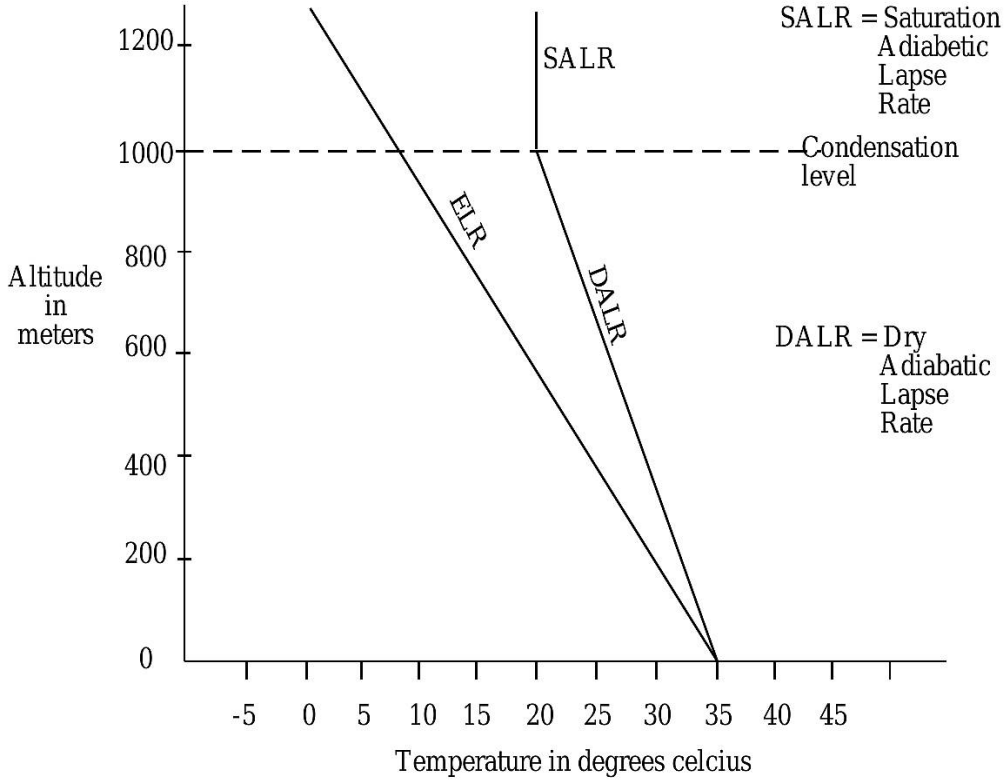


Fig. 1

With reference to the temperature – height diagram shown in **Fig. 1**,

(i) State the temperature of the rising air at 1 000 metres above sea level. [1]

(ii) calculate the Dry Adiabatic Lapse Rate. [2]

(iii) Describe the "Adiabatic Lapse Rate". [3]

(b) **(i)** Describe and explain the conditions that favour the development of tropical storms.

(ii) Explain the variations in wind speed and precipitation across the storm.

[12]

(c) Evaluate measures that can be taken to reduce the adverse effects of tropical storms. [7]

2	**(a)**	Draw a labelled diagram to show a rift valley.	[6]
	(b)	Outline the benefits and problems of fold mountains to the local community.	[12]
	(c)	How may human activities modify slope forms.	[7]
3	**(a)**	Briefly describe 'evaporation' and infiltration'.	[6]
	(b)	Outline indigenous methods used to test for the presence of water and its quality.	[12]
	(c)	Explain how man may influence the rate of infiltration.	[7]
4	**(a)**	Describe the characteristics of vegetation in a Tropical Continental woodland.	[6]
	(b)	Outline the challenges faced in trying to conserve the Tropical Continental ecosystem.	[12]
	(c)	Assess the success of measures taken to improve soil quality.	[7]
5	**(a)**	Describe the causes of drought,	[6]
	(b)	Write an explanation account of the effects of drought on the environment.	[12]
	(c)	Explain any **three** ways in which the effects of drought can be reduced.	[7]
6	**(a)**	Describe the process of scarp retreat as it occurs on slopes.	[6]
	(b)	With the aid of diagrams show how alternating periods of deep weathering and removal of the resultant layers in the past may have influenced the formation of bornhardts.	[12]
	(c)	Explain how human activities modify bornhardts in the tropics.	[7]
7	**(a)**	Briefly describe the processes of "percolation" and "throughflow".	[6]
	(b)	With the aid of annotated diagrams, explain how the shape of river Hydrographs is influenced by vegetation and rock type.	[12]
	(c)	Explain how people have been responsible for the modification of ground water stores.	[7]

8 **(a)** Outline the characteristics of a soil profile. [6]

(b) **Fig. 2** below shows the nutrient cycle of a tropical hot desert ecosystem.

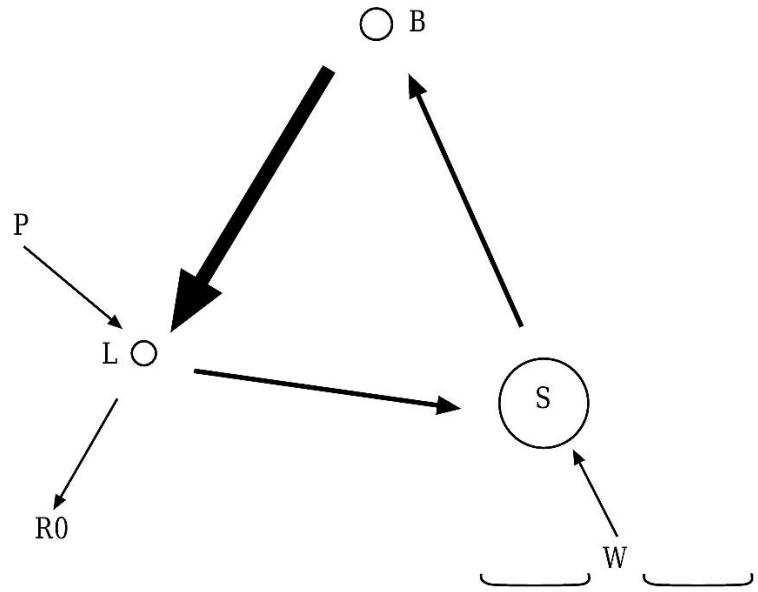


Fig. 2

Describe and explain the main features of the nutrient cycle shown in **Fig. 2** above. [12]

(c) Explain how irrigation in hot deserts can be practised in a sustainable manner. [7]

9 **(a)** Give the main causes of flooding. [6]

(b) Evaluate attempts that have been made to reduce the effects of river flooding. [12]

(c) How have man influenced flooding. [7]

10 **(a)** Draw labelled diagrams to illustrate the main types of faults. [6]

(b) Describe and explain landform development in areas that have been affected by faulting. [12]

(c) How have local communities benefitted from faulting. [7]