



**ZIMBABWE SCHOOL EXAMINATIONS COUNCIL**  
General Certificate of Education Advanced Level

**GEOGRAPHY**  
PAPER 1

**9156/1**

**NOVEMBER 2005 SESSION**

**3 hours**

**1 : 50 000 Survey map is enclosed with this question paper**

Additional materials:  
Answer paper



016436

**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 **four** questions.

Answer **one** question from Section A, **two** questions from Section B and **one** question from Section C.

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 advised to spend no longer than 45 minutes on Section A.

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

**This question paper consists of 6 printed pages and 2 blank pages.**

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**Section A (Practicals)**

Answer **one** question from this section.

- 1 Study the map provided (1 : 50 000, Kashambi, Zimbabwe).
- (a) Draw a sketch map showing, in simplified form, the main relief and drainage features of the area shown on the map. [12]
- (b) Describe the landforms and drainage of the area and explain the relationship between them. [13]
- 2 You are required to investigate changes in the valley cross-profile of a small stream approximately 5 km in length.
- (a) Briefly describe how you would prepare for the field survey. [5]
- (b) Describe the survey method you would use to measure aspects of slope profiles. [10]
- (c) How might the data collected in the field be used to explain factors which have influenced the form of valley cross-profiles? [10]

**Section B (Physical Core)**

Answer **two** questions from this section.

- 3 (a) Briefly explain the bases for the classification of clouds. [6]
- (b) (i) Outline the processes of raindrop formation.
- (ii) What are the main causes of variation in rainfall intensity and duration? [12]
- (c) How may human activities influence the amount of rainfall received in an area? [7]

- 4 Fig. 1 shows three atmospheric conditions at a place.

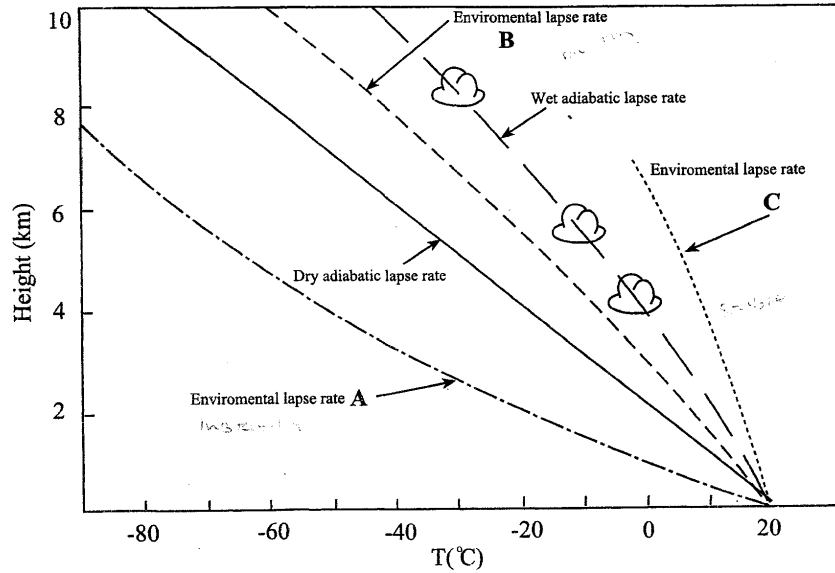


Fig. 1

- (a) State and briefly explain the atmospheric conditions marked A, B and C in Fig. 1. [6]
- (b) Explain why the ELR measured in an area varies from time to time. [12]
- (c) Under what conditions does condensation occur near the ground level? [7]
- 5 (a) With the aid of labelled diagrams, briefly describe the fluvial transportational processes. [6]
- (b) Explain the concept of a graded profile and explain why such profiles rarely occur. [12]
- (c) In what ways do human activities influence the development of fluvial landforms? [7]

- 6 Fig. 2 shows the water budget of a weather station.

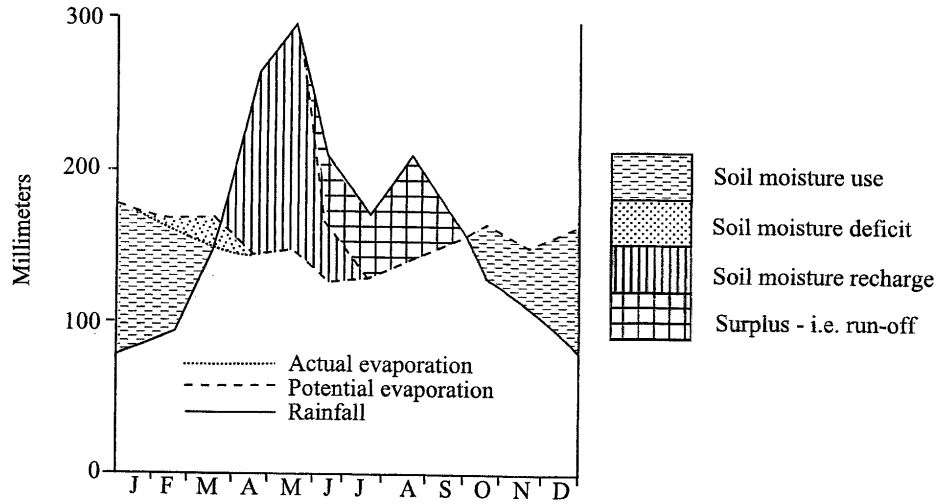


Fig. 2

- (a) Define the term *water budget* as used in the study of the hydrological cycle. [6]
- (b) Describe and explain the changes shown in Fig. 2. [12]
- (c) How may the changes shown affect ground water and river discharge? [7]
- 7 (a) Briefly describe any **three** soil translocation processes. [6]
- (b) Describe and explain the changes in soil characteristics that are expected along a hill slope in seasonally humid tropics. [12]
- (c) With reference to examples, assess the effectiveness of measures used to improve soil fertility. [7]

Fig. 3 shows variations in the depth of regolith for different climatic zones.

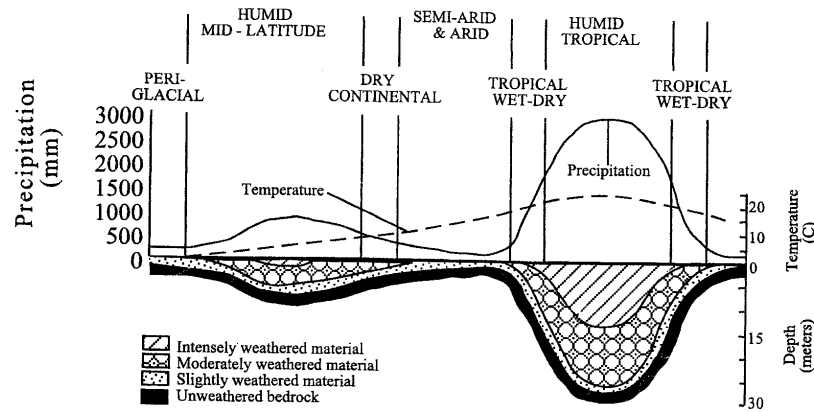


Fig. 3

- (a) Briefly describe and explain the changes in the depth of regolith shown in Fig. 3. [6]
- (b) What other factors affect the rate and type of weathering besides those shown in Fig.3? [12]
- (c) With reference to examples, assess the role of weathering in the development of landforms. [7]

### Section C (Physical Options)

Answer **one** question from this section.

- 9 (a) Describe the main features of young fold mountains and island arcs. [9]
- (b) Describe and explain the global distribution of young fold mountains and island arcs. [16]
- 10 (a) Under what conditions are hazardous mass movements likely to occur? [9]
- (b) With reference to examples, discuss the effect of these movements and assess the effectiveness of measures to reduce their impact. [16]

- 11 (a) Describe and explain the main types of weathering in arid regions. [9]
- (b) What evidence suggests that the climate in arid and semi-arid tropical regions is changing? [16]
- 12 (a) Discuss the factors that influence the rate of coastal erosion. [9]
- (b) With reference to areas studied, assess the success of attempts to protect coastal areas from erosion. [16]
- 13 (a) Describe the main features of permafrost. [9]
- (b) With reference to examples, describe and explain the ways in which permafrost affects landform development in peri-glacial areas. [16]

*low rainfall*  
*high evaporation*  
*high temperature*  
*low humidity*  
*high wind speed*

*physical weathering*  
*chemical weathering*

*Climate*  
 - Sun position  
 - Amount of rainfall  
 - Location relative to equator  
 - Seasonal temperature change  
 - Ocean currents

*erosion*  
*deposition*  
*glaciation*  
*permafrost*  
*landform*