UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

GEOGRAPHY **2217/02**

Paper 2

May/June 2004

2 hours 15 minutes

Additional Materials: Answer Booklet/Paper;
Ruler;
Protractor;
Calculator;
1:25000 Survey Map Extract is enclosed with this question paper.

READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.
Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions in Section A and **one** question in Section B.
At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
Insert 1 contains Figures and Tables for Questions 7, 8 and 9.
Insert 2 contains Photograph A for Question 3.

This document consists of 9 printed pages, 3 blank pages and 2 inserts.

SP (DR) S59896/3

UNIVERSITY of CAMBRIDGE International Examinations
[Turn over

Section A

Answer **all** questions in this section.

1 Study the map of part of the Island of Mauritius on a scale of 1:25 000 and answer the following questions.

(a) **(i)** What type of building is located at grid reference 983650? [1]

(ii) Give the six figure grid reference of the confluence of the Riviere Patates and the River Savanne north of the settlement of Surinam. [1]

(b) **(i)** A truck travels from the tea factory at 954713 by road to the junction with the Main B89 Chamount Road. How far does it travel? Give your answer in metres. [1]

(ii) In which compass direction has the truck travelled when it reaches the cutting on this road from the tea factory? [1]

(c) Which type of agriculture covers most of the land south of northing 70? [1]

(d) **(i)** Describe the River Savanne and its valley from grid reference 991700 to its confluence with the Riviere Patates. [3]

(ii) In what ways has the river been used for the economic development of the area? [3]

(e) **(i)** Name **four** services provided by the settlement of Souillac other than those connected with religion. [4]

(ii) What is the main pattern of settlement for the first two kilometres along the Main B roads leading west from Surinam? [1]

(iii) Suggest a reason for this. [1]

(f) What map evidence is there to explain why so few people live in the area north of grid line 70? [3]

2 Study Fig. 1 which gives information about female literacy and fertility rates for selected countries.

Female Literacy and Fertility Rates:
Selected Countries

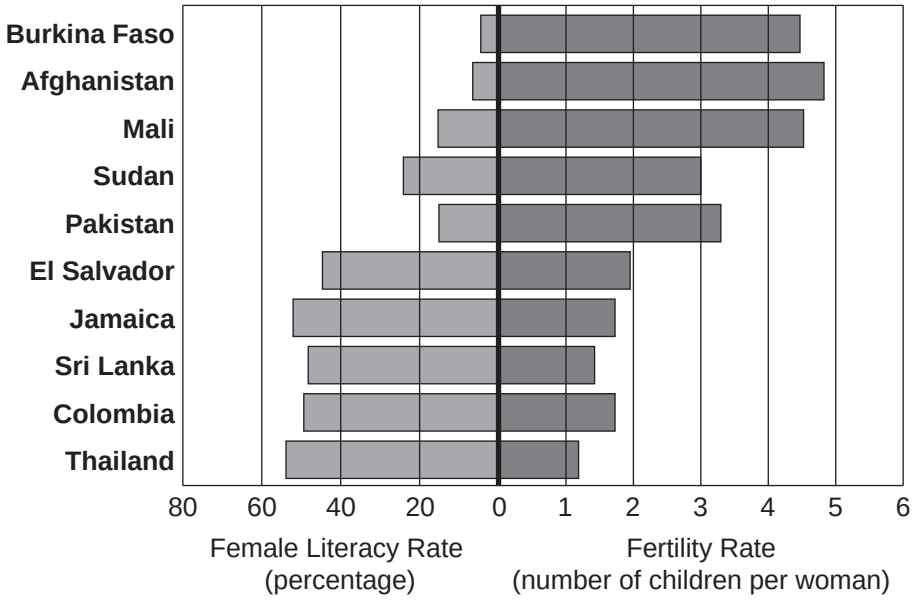

Fig. 1

(a) (i) In which country was the female literacy rate lowest? [1]

(ii) What was the fertility rate in Sudan? [1]

(b) (i) What relationship is shown between the two sets of data? [2]

(ii) Suggest reasons for the relationship which you have identified in **(b)(i)**. [2]

3 Study Photograph A (Insert 2) which shows a landscape in a tropical country.

(a) Describe the location and nature of the cultivated area. [3]

(b) (i) Describe and explain what has happened to the hill area in the background. [3]

(ii) Suggest some environmental risks which may result from this. [2]

[Turn over

4 Study Fig. 2 which shows the discharge (volume of flow) of a river over a period of two years.

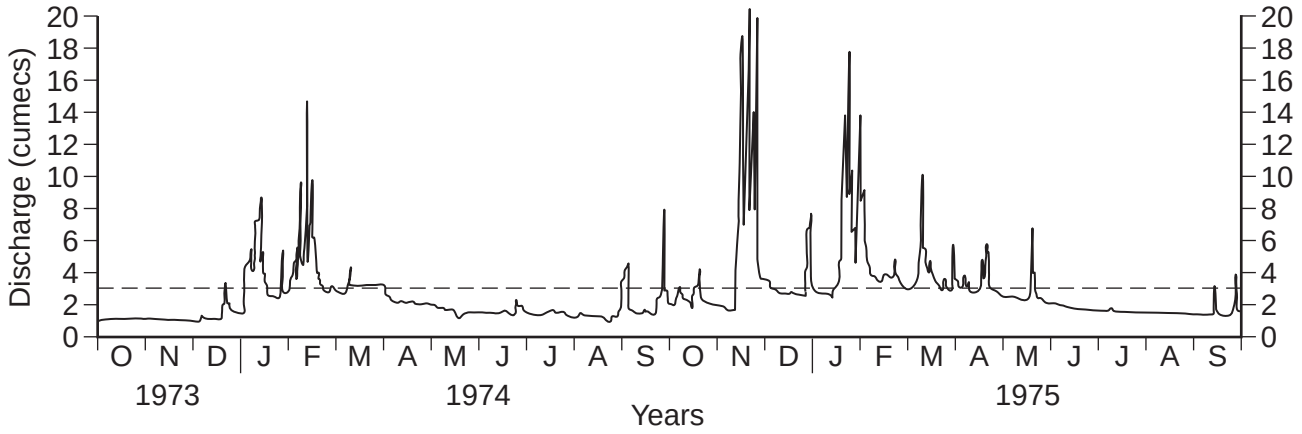

Fig. 2

(a) (i) In which month and year was the highest discharge recorded ? [1]

(ii) What was the length of the longest period of discharge below 3 cumecs? Give your answer as a number of months. [1]

(b) (i) Describe the pattern of discharge over the whole period. [3]

(ii) Suggest **two** reasons for the pattern of discharge shown. [2]

5 Study Figs 3A and 3B which show part of a tropical country before and after the construction of a large dam.

Before the dam construction

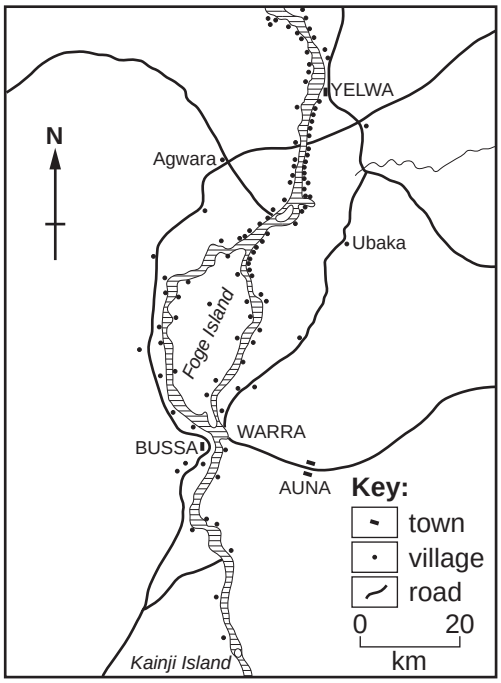

Fig. 3A

After the dam construction

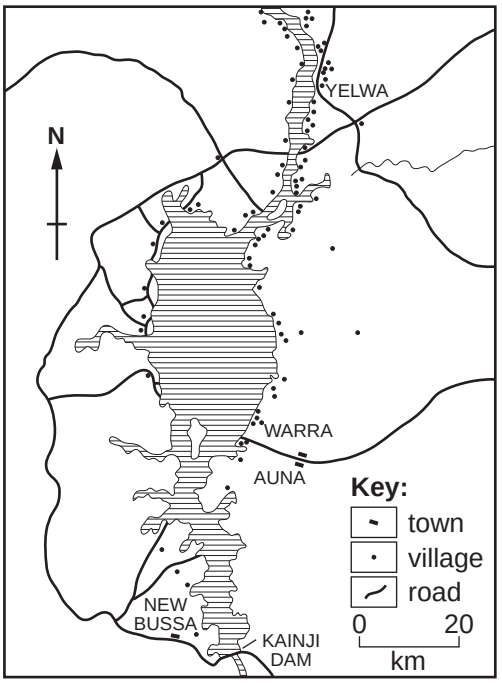

Fig. 3B

(a) On which side (compass direction) of the river is the settlement of Auna? [1]

(b) Describe the main pattern of village settlement shown in Fig. 3A and suggest reasons for it. [3]

(c) What has happened to the town of Bussa between the two dates? [2]

(d) In which direction is the river flowing? [1]

[Turn over

6 Study information given in Fig. 4 which is about the effects of the development of a large water supply project in a tropical country.

HIGHLANDS WATER SCHEME - THE DOWNSIDE

The Highlands area of Lesotho has a heavy rainfall, yet the local people do not have enough water. It is being taken by Africa's most ambitious development, the Lesotho Highlands Water Scheme, to provide neighbouring South Africa with water for its cities and industries.

The Lesotho Highlands Development Authority has built a huge access road, bridges and housing for foreign workers in this remote and beautiful area. Rivers have been sealed off to create the huge Katse Dam.

The arrival of foreign workers has put great pressure on village water resources, as well as bringing problems with housing, drunkenness, prostitution and crime. While an advanced water system supplies the foreign workers housing, local people have to fetch water with wheelbarrows and donkeys.

Thousands of people are being displaced from their land by the scheme with little or no compensation. Local villagers lost their garden plots when the access road was constructed and, although they were given cash compensation plus a number of seedlings, they have no land left on which to plant them.

Fig. 4

(a) **(i)** Name the dam which was being constructed. [1]

(ii) What is the purpose of the scheme? [1]

(b) Using the information given:

(i) describe the possible advantage for the people of the Highlands area of Lesotho from this scheme; [1]

(ii) describe the possible disadvantages of the scheme

A for the environment, [1]
B for the local people. [2]

7 Study Fig. 5 (Insert 1) which shows information about changes in the employment structure of a newly industrialised country.

(a) **(i)** Which was the largest sector of the economy of this country in 1952? [1]

(ii) On Fig. 5, add the following data for 2000. Use the key provided.

Agriculture 3%, Industry 43%, Services 54% [2]

(b) Describe the changes which have taken place in the employment structure of this country between 1952 and 2000. [3]

Section B

Answer **one** question from this section.

8 Students made a rain gauge and measured the rainfall and wind direction at their school every day at 1000hrs for a period of 14 days. The students compared their data with measurements recorded at the local airport using a standardised rain gauge during the same time period. The airport is 20km away from the school. It is closer to the sea and located on higher land than the school. The following hypothesis was tested *'rainfall is greater closer to the sea and when the winds are blowing from the South'*.

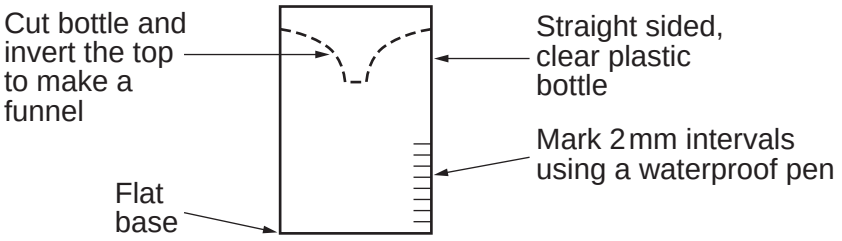

Fig. 6

(a) The students used the instructions in Fig. 6 to make a rain gauge from a plastic bottle.

(i) Study Fig. 6 and explain the importance of

A using a 'waterproof pen',
B using a 'straight sided bottle'. [2]

(ii) Suggest **two** factors that students must consider when deciding where to place the rain gauge to collect accurate rainfall readings. [2]

(b) The students' results are shown in Table 1 (Insert 1). A dispersion graph was used to display the data (Fig. 7 Insert 1).

(i) Complete the dispersion graph for day 8 using the results of both locations. [2]

(ii) Describe the distribution of rainfall at the school during the 14 days. [2]

(iii) Calculate the average daily rainfall figure for the airport location. Place this figure in Table 1. [1]

(iv) Compare the rainfall data for the two locations. [2]

(v) Reread the information about the locations of the school and airport. Explain how and why each of the following may influence the amount of rainfall at the location

A altitude,
B distance from the sea. [4]

(c) **(i)** The wind direction was measured using a wind vane similar to the one shown in Fig. 8 (Insert 1). Explain the function of the part of the instrument labelled **X**. [2]

(ii) The wind rose graphs display the wind direction measurements (Fig. 9 Insert 1). Complete the graphs for the number of days with northerly winds at both locations. [3]

[Turn over for the rest of Question 8

(d) Study Table 1 again and suggest the direction of the sea from the airport and school. Give reasons for your answer using the rainfall and wind direction figures. [4]

(e) Write a conclusion to this investigation. It should include reference to

- acceptance or rejection of the hypothesis with data evidence to support the decision
- disadvantages of the methods of data collection and problems of comparing different rain gauge results
- possible student error. [6]

9 A simple questionnaire was designed to find out about visitors to a leisure park. Students used a systematic sampling method and asked questions to every 10th person who passed. 100 people were asked in total. A copy of the questionnaire is shown on Fig. 10 (Insert 1).

(a) **(i)** State **one** advantage of asking every 10th person. [1]

(ii) Explain the importance to the investigation of recording the time and the weather conditions. [2]

(b) Study the questionnaire (Fig. 10, Insert 1). The first question was asked to find out the sphere of influence of the park.

(i) What is the 'sphere of influence' of a leisure park? [2]

(ii) Outline a reason why the results of Question 1 may not give accurate information about the sphere of influence. [1]

(iii) Suggest another wording of this question to investigate the sphere of influence of the leisure park. [1]

(c) **(i)** Design a question to find out what type of transport visitors used to reach the leisure park. Write the question and possible answers on Fig. 10 (Insert 1) in the space provided for Question 4. [3]

(ii) Explain how the results of this question will help investigate the sphere of influence of the park. [2]

(d) Study Table 2 which shows the results of Question 2 in the questionnaire.

(i) Draw a pie chart (divided circle graph) on Fig. 11 (Insert 1) to show how long visitors intended to stay at the leisure park (Question 2). Write a title to the graph and use a key. [6]

(ii) Describe the results. [2]

(iii) Explain how the length of time visitors spend in a park may influence their impact on the environment of the park. [4]

(e) In Question 3 (Fig. 10 Insert 1) of the questionnaire each visitor was asked their opinion of the park's facilities. The results are shown in Table 3 (Insert).

(i) Describe the pattern shown by the data. [4]

(ii) Suggest actions that the park management could take to improve the facilities for visitors. [2]

BLANK PAGE

BLANK PAGE

BLANK PAGE