

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education Ordinary Level

**GEOGRAPHY**

**2217/02**

Paper 2

October/November 2005

**2 hours 15 minutes**

Additional Materials: Answer Booklet/Paper;  
Ruler;  
1:50 000 Survey Map Extract is enclosed  
with this question paper.

**READ THESE INSTRUCTIONS FIRST**

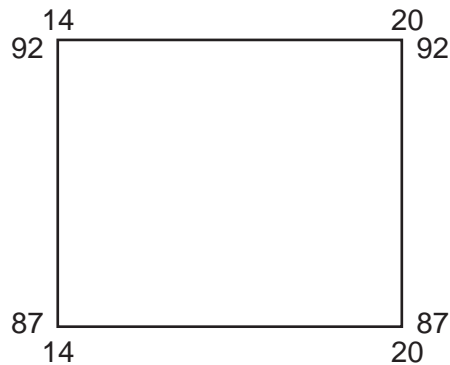
If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.  
Write your Centre number, candidate number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or 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.  
The insert contains Fig. 1 for Question 2, Photograph A for Question 3 and the Photograph and all tables  
and Figs for Question 8 and 9.

## Section A

Answer **all** questions in this section.

- 1 Study the map of the Bindura region of Zimbabwe on a scale of 1:50 000 and answer the following questions.
- (a) (i) Give the grid reference of the confluence of the Inyauri and the Pote Rivers in the east of the map. [1]
- (ii) What is located at 217722? [1]
- (b) (i) Give the bearing of the road which leaves Bindura at 225871 heading for Mt Darwin. [1]
- (ii) How far is it along this road from the junction at Sports Field (225871) to Mt Darwin, which is situated along this road beyond the edge of the map? Give your answer in kilometres. [1]
- (c) Describe the land use and settlement in the area shown.



[3]

- (d) (i) Which is the steepest side of the Mhungamhonore hill on the southern edge of the map? [1]
- (ii) Describe the principal features of the Inyauri River and its valley from where it crosses grid line 25 to its confluence with the Pote River. [4]
- (e) (i) Use map evidence to explain the importance of mining in the Bindura area. [5]
- (ii) What map evidence is there of the provision for leisure activities in Bindura? [3]

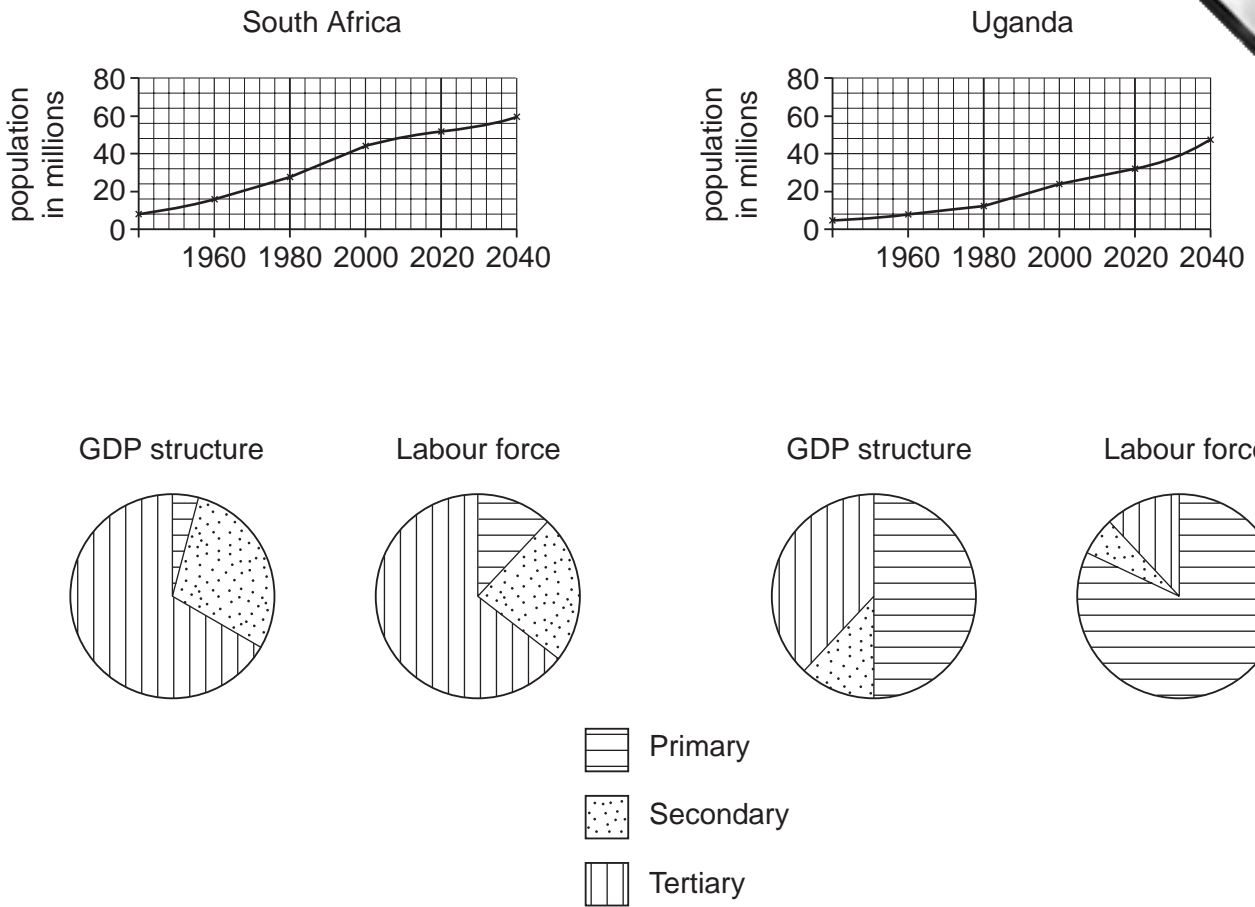
- 2 Fig. 1 (Insert) is a graph comparing the percentage of urban population with the Human Development Index (HDI) for a number of countries. The higher the HDI the more developed the country.
- State the type of graph used as Fig. 1. [1]
  - Which country has the highest % of urban population? [1]
  - Which two countries are least developed? [1]
  - On Fig. 1, mark the position of Indonesia. It has a HDI of 0.64 and 40% of its population is urban. [1]
  - Describe the relationship between HDI and the percentage of urban population. [2]
- 3 Study Photograph A (Insert) which shows a rural area on a small tropical island in the Pacific Ocean.
- Describe the land use in the area shown, apart from roads and tracks. [3]
  - Suggest **four** effects the building of a large hotel would have on such an area and its people. [4]
- 4 Study Fig. 2 and then complete the statement in the Insert using words chosen from the list below.



Fig. 2

canopy, deciduous, emergents, Equator, evergreen, lianas, light, mangrove, tropical rain, undergrowth, water. [7]

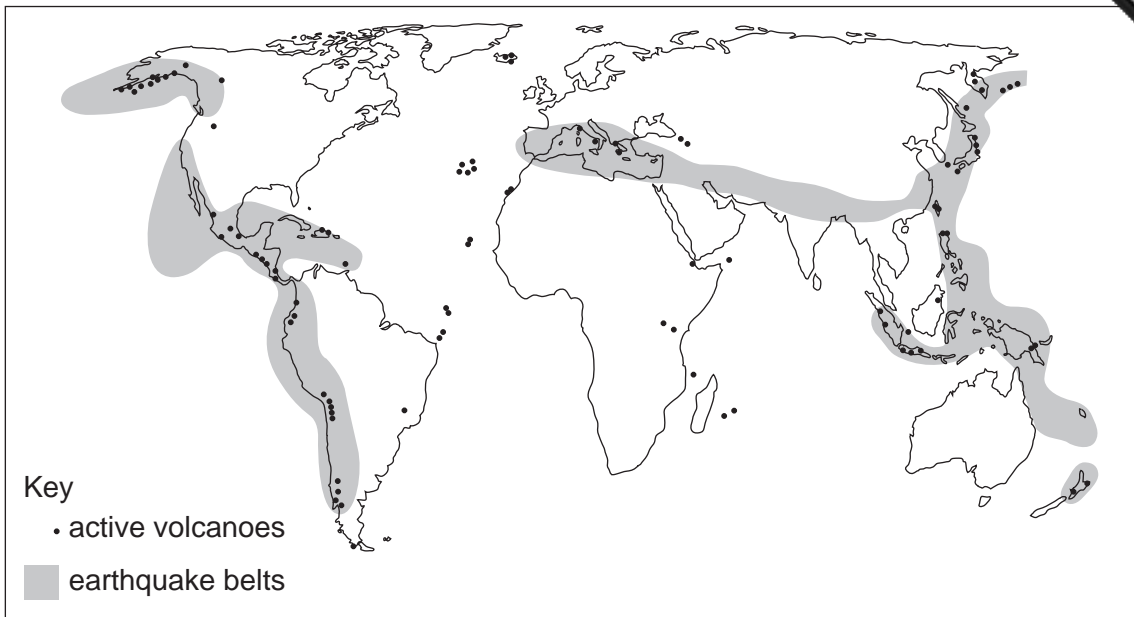
5 Study Fig. 3, which gives data for South Africa and Uganda.



**Fig. 3**

- (a) (i) Which country had the larger population in 2000? [1]
- (ii) How is the growth of population in South Africa after 2000 expected to be different from that in Uganda? [2]
- (b) (i) Compare the structure of the GDP of both countries. [3]
- (ii) Which sector of the economy would you expect to provide the major exports from Uganda? [1]
- (iii) What evidence is there that, in both countries, production of primary goods is labour intensive rather than capital intensive? [1]

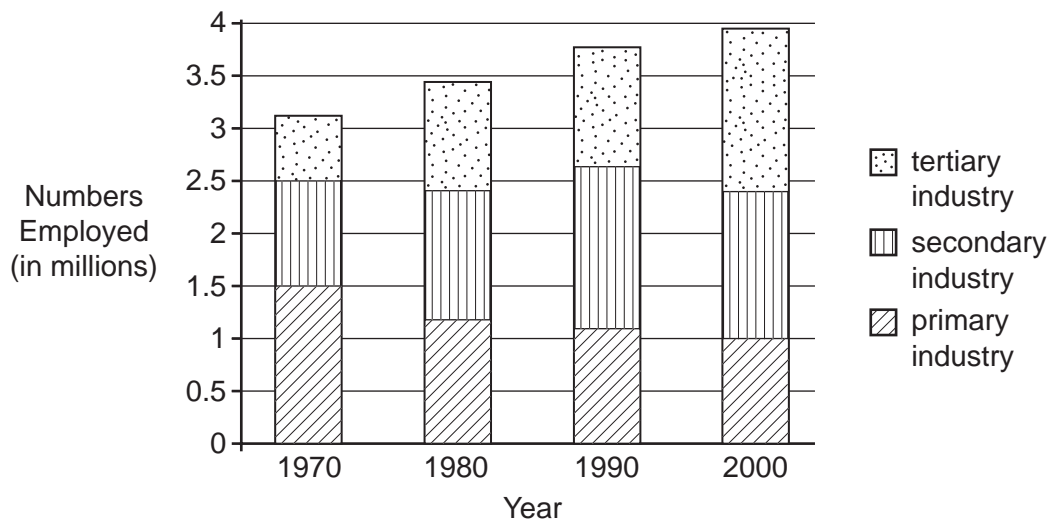
- 6 Study Fig. 4 which shows the world distribution of active volcanoes and earthquake belts.



**Fig. 4**

- (a) Describe the world distribution of active volcanoes. [3]
- (b) Explain why earthquakes occur in the regions shown. [3]

- 7 Study Fig. 5 which shows the number of people employed in the three classes of industry in a small tropical country over a period of time.



**Fig. 5**

- (a) (i) Which class of industry employed the most people in 1970? [1]
- (ii) How many people were employed in secondary industry in 1990? [1]
- (b) Describe the changes during the period shown in employment in
- (i) primary industry and [1]
- (ii) tertiary industry. [1]

## Section B

Answer **one** question from this section.

- 8 Students investigated the weather every day at 08.00 during one week in December at their school. The hypothesis used by the students was

*'the temperature in the school grounds varies throughout the year'.*

- (a) The maximum and minimum thermometer (Six's thermometer) was kept in a Stevenson Screen as seen in Fig. 6 (Insert).
- (i) For each characteristic of the Stevenson Screen labelled on Fig. 6 (Insert), state a possible reason for the design in the space provided on Fig. 6. [3]
  - (ii) What are the maximum and minimum temperatures shown on the thermometer on Fig. 7? [2]
  - (iii) Suggest why the temperature was recorded daily at 08.00. [1]
- (b) The results recorded by the students are shown in Table 1 (Insert).
- (i) Calculate the average temperature for Wednesday in December and fill in the answer on the table in the space provided. [1]
  - (ii) Complete the graph (Fig. 8 Insert) by plotting the minimum December temperature figures using the appropriate key. [3]
  - (iii) Add labels to the graph to indicate
    - the highest temperature and the lowest temperature
    - the smallest daily temperature range. [2]
  - (iv) Explain why calculating the average daily temperature is useful in the analysis of the data. [1]
- (c) (i) Use both Fig. 8 and Table 1 to compare the temperatures on Monday and Thursday in December. You should support your comments with data. [3]
- (ii) Suggest **one** reason why the temperatures recorded on Monday and Thursday may not be representative of temperature in December. [1]
- (d) The location of the school is on the 33°S line of latitude, 10 km from the sea and 175 m above sea level. Explain in detail how the location of this school may influence the temperature recorded during a year. [6]
- (e) The students repeated the measurements for a week in July. Study Table 1 again. Describe and explain the differences between the July and December average temperatures. [3]
- (f) It was decided that the hypothesis and the investigation were too simple. Suggest practical methods by which the students may improve the weather investigation. You should include a new hypothesis, the use of other instruments, data collection times and the use of secondary sources. [4]

[Total: 30 marks]

- 9 A group of students investigated the impact of tourism on their town. It was suggested that tourism had a negative impact on the environment but a positive impact on the economy of the town.
- (a) Reword this suggestion to form a simple hypothesis. A hypothesis is a statement that can be tested. [2]
- (b) The students devised a bi-polar scoring system to measure the quality of the environment in several areas of the town. Table 2 (Insert) shows the final recording sheet after the students completed a pilot survey.
- (i) What is a pilot survey and why is it important to an investigation? [2]
- (ii) Write simple instructions for a student to complete the environmental survey using the recording sheet. [2]
- (iii) State **two** possible problems of using this environmental survey to investigate reliably the impact of tourists on the town. [2]
- (c) The students also recorded the environmental quality by using photographs. Photograph B (Insert) shows one of the areas surveyed by the students.
- (i) Use the features listed in the bi-polar recording sheet to add three labels to the photograph in the Insert to show the environmental quality of this area. [3]
- (ii) Add another label to the photograph to show how the authorities provide services in the area. [1]
- (iii) To what extent does the site shown in the photograph show the impact of tourism on the environment of this town? [2]
- (d) The students' results of the environmental quality survey for two areas are shown on Table 3 (Insert).
- (i) The results from area A are already on the graph Fig. 9 (Insert). Complete the bi-polar graph (Fig. 9) for area B and complete the key. [2]
- (ii) Describe the similarities and differences between areas A and B. [2]
- (e) The economic impact of tourism on the town was also investigated. One student suggested visiting all the hotels in the town. The students finally used a sample of hotels and secondary data.
- (i) State **one** advantage and **one** disadvantage of sampling. [1]
- (ii) What is secondary data? State an example of a useful source of secondary data for this investigation. [2]
- (f) Another student decided to survey all 68 buildings along the main street of the town. Table 4 and Fig. 10 show the results of this land use survey.
- (i) What are the possible economic effects of tourists visiting a town? Suggest how this may change the land use of a town. [5]
- (ii) Describe the pattern of the results shown on the pie chart (Fig. 10). [2]
- (iii) For the land use survey only, evaluate the data collection method used by this student. You should comment on the classification of buildings and the limitations of this investigation. [3]

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*Copyright Acknowledgements:*

Photograph B                      Mrs A. Tooke © UCLES

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