



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

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**ECONOMICS**

**0455/06**

Paper 6 Alternative to Coursework

**October/November 2007**

**1 hour 30 minutes**

Additional Materials: Answer Booklet/Paper

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**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.

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.

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.

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This document consists of **3** printed pages and **1** blank page.



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1

### Cell phones in Africa

Living on a mountaintop in South Africa, 24 miles from the nearest town, it takes four hours to fetch water from a river. There is no electricity. Yet when there is need to talk to relatives who work 400 kilometres away, the people use cell (mobile) phones.

The number of cell phones in Africa expanded from 7.5 million in 1999 to 76.8 million in 2004. This was an annual increase of 58%. Asia had the second fastest growth but that was just 34%. Almost 10% of Africans now have cell phones yet there is only one land line for every 33 people.

The cell phone companies thought that with the majority of Africans living on \$2 a day they were too poor to justify the company investing in cell phone networks outside the more prosperous towns. Currently only about 60% of Africans are within reach of a phone signal. However, in the 1990s the large telephone companies lost their monopoly status and the phone supply was provided by smaller, more competitive, companies. The new companies sold air time in smaller, cheaper units which rural dwellers with low incomes could afford.

Demand was so strong in Nigeria that in 2002–3 operators were forced to stop new customers until they had increased their network coverage. In the Congo, a local **entrepreneur** began the network when no foreign manufacturer was willing to ship the expensive transmitter equipment there because of the civil war. Now he has a joint venture with Vodacom which has 1.1 million subscribers increasing by 1000 daily. Villagers built towers 15 metres high in order to receive the signal from more distant towers provided by the network operator. People who want to climb to the top of the tower to make a phone call have to pay the owner of the tower to do so.

The technology has benefited many businesses. Rural farmers can learn the current price for produce in major markets, health-care workers can call ambulances from distant clinics, remote plant nurseries can prosper because orders can be placed by phone when before very few people would travel the distance to visit. One woman living on the Congo River, who has never learned to read, sells fish. She has no electricity, and cannot put the fish in the freezer so keeps them in the river tied alive on a string. People order by phone and she prepares the fish for sale.

The problem of how to charge the phone in areas without electricity has also been solved. One of the local people has a car battery. There is no car; income is far too low to afford one. One of the battery owners said 'When others wish to charge their phones from it they pay 80 cents.' When the battery needs re-charging she takes it by bus 20 miles to the nearest gas (petrol) station. 'A lot of people use the battery,' she said, smiling.

- (a) (i) What is meant by an entrepreneur. [2]  
 (ii) Identify **four** examples of entrepreneurs in the above article. [2]
- (b) (i) Explain what is meant by complementary (joint) demand and identify an example of a complementary demand for a product or service from the above article. [2]  
 (ii) Suppose the demand for a product or service increases. Explain, using demand and supply diagrams, what you would expect to happen in the market for that product and in the market for a complementary product or service. [4]
- (c) In the 1990s cell phone services were provided by small competitive firms. What might explain why a company is large or small? [5]
- (d) Explain the difference between the fixed and variable costs for a person using a cell phone. [4]
- (e) You are asked to consider whether it is worthwhile buying shares in a company that supplies cell phone networks in Africa. What would you need to know about the company in order to make the decision and what evidence is there in the article that might help you? [10]

[Total: 29]

2

**Textile factories in Lesotho close**

In Lesotho six textile factories closed in early 2005 leaving 650 people without work. The reason for the closures was said to be the end of worldwide textile quotas which limited competition from cheap Asian exports to the US and Europe. Lesotho's local currency was fixed to the rand and had the same exchange rate. Some factory owners also said that because the value of the rand was rising against the US dollar, it meant they were disadvantaged when exporting to the US. Lesotho is Southern Africa's largest exporter of textiles to the US partly because of an American law that gives Lesotho's textiles duty-free access. In 2003 it produced 31 % of the textiles exported from Africa to the US.

- (a) The article says that Lesotho benefited because competition was limited by quotas. Explain how this system can benefit Lesotho. [3]
- (b) Suggest why a country's exports might be cheaper than those from other countries. [3]
- (c) The article says that the local currency is 'fixed to the rand'. What does this mean? [2]
- (d) Explain how a rising exchange rate can sometimes be harmful to a country. [3]

**[Total: 11]**

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