



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education Advanced Level

CANDIDATE  
NAME

CENTRE  
NUMBER

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**APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY**

**9713/03**

Paper 3

**May/June 2009**

**1 hour 15 minutes**

Candidates answer on the Question Paper.

No additional materials are required

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

Do not use staples, paper clips, highlighters, glue or correction fluid.

You may use a pencil for any diagrams, graphs or rough working.

**DO NOT WRITE IN ANY BARCODES**

Answer all questions.

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

The businesses described in this paper are entirely fictitious.

This document consists of **14** printed pages and **2** blank pages.



**Scenario 1**  
**Questions 1 to 4**

Rock-ICT is a company that sells CDs, DVDs and books through shops in several cities.

The company has done some market research into the possibility of selling items online. A systems analyst has been brought in to help with this development.

A project management team has been set up to monitor the system before and after it comes into operation.









**Scenario 2**  
**Questions 5 to 7**

Karpartco is a manufacturing company which has eight factories who make parts for the motor industry. They often need to develop new components and are sometimes asked to make one-off items.

They frequently use video conferencing to keep Karpartco factories and suppliers in contact with each other.

Karpartco uses LANs within each of its factories. Each factory is connected to the other seven Karpartco factories using a WAN.

5 (a) 3D inkjet printers can be used to produce prototype plastic working models as part of CAD/CAM.

(i) Describe how these models are produced by the printer.

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(ii) Explain why it is useful to produce these prototype models.

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(b) Name **two** other output devices used in CAD and explain why they are used.

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6 (a) Describe the advantages to the company of using video conferencing.

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(b) The use of video conferencing has increased rapidly in the last few years. Describe the recent developments that have led to this increase.

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7 Describe how the following components are used in Karpartco's networking system:

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Use

(i) hubs

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(ii) routers

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(iii) switches

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(iv) telnet.

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**Scenario 3**  
**Questions 8 to 10**

BrazilParcel is a delivery company which uses an expert system to advise on the routes taken by its delivery vehicles.

Other software is used to:

- help advertise the business
- calculate payrolls
- assist in general administration.

BrazilParcel use an intranet to allow internal communications, but customers are able to access company information from external networks via the internet.

8 (a) Describe the advantages to BrazilParcel of using an expert system.

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(b) Describe how the expert system would be set up and maintained.

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9 (a) Describe ways in which BrazilParcel could advertise its business using ICT.

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(b) Describe how mail merging could be used to enable the company to send personalised communications to its customers.

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10 (a) Apart from security aspects, explain why BrazilParcel uses an intranet for some communications.

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(b) Describe the software security which guards against hacking and unwanted communication from external sources.

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