



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Advanced Level

CANDIDATE
NAME

CENTRE
NUMBER

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APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/33

Paper 3

October/November 2011

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 **21** printed pages and **3** blank pages.



Scenario 1
Questions 1 and 2*For
Examiner's
Use*

Cambridge Zoo is expanding its activities to bring in more visitors. The Zoo Director has decided to introduce a website for visitors that enables several functions to be carried out. Tickets can be bought in advance to be used with a bar code reader linked to an automatic gate.

In the visitor centre there is an expert system that can be used to identify animals.

A new building will house animals who hunt in the daytime and at night. The director wants it to be open in time for the peak visitor season. The new animal house will have a computer controlled environment.

1 (a) Explain the advantages to the zoo of allowing visitors to buy tickets in advance.

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(b) A visitor uses a touch screen to access the expert system. Describe:

(i) the format of the input screen, giving an example of a suitable question,

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(ii) the output after the visitor has input all of the details.

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*For
Examiner's
Use*

(b) Describe how project management software would be used in the production of the new building.

For
Examiner's
Use

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Scenario 2
Question 3

*For
Examiner's
Use*

The Midland Examining Group (MEG) is investigating the use of computer marked examinations.

3 (a) Describe how a student would give their answers to questions.

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*For
Examiner's
Use*

Scenario 3
Question 4

*For
Examiner's
Use*

The National Meteorological Service uses a supercomputer to produce weather forecasts.

4 (a) Compare and contrast a PC (personal computer) and a supercomputer.

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*For
Examiner's
Use*

(b) Explain how supercomputers are used to produce weather forecasts.

*For
Examiner's
Use*

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Scenario 4
Questions 5 and 6

*For
Examiner's
Use*

Goshawk Airways provides flights throughout the Middle East. They use flight simulators to train their pilots.

Goshawk Airways offers online booking through their website which is held, together with customer details, on a server.

5 (a) Describe how **four** output devices of the simulator are used to simulate the actual flying experience.

*For
Examiner's
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(b) Explain why Goshawk Airways uses a flight simulator rather than using real aircraft to train pilots.

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(b) Explain how each of the following are used to restrict access to customer details on Goshawk Airways' server.

*For
Examiner's
Use*

(i) firewall

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(ii) digital certification

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(iii) encryption

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Scenario 5
Question 7*For
Examiner's
Use*

Bangalore Audio Company (BAC) distributes electronic goods to the south of India. It uses ICT systems to assist with all aspects of the business. Just in time (JIT) is used to order goods from suppliers and despatch goods to customers.

Damaged goods are sold on auction pages which are part of the BAC website.

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