



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Advanced Level

CANDIDATE
NAME

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NUMBER

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APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/31

Paper 3

May/June 2013

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
Question 1

*For
Examiner's
Use*

A local government is concerned about the digital divide amongst its citizens.

This local government provides a number of online services giving information and offering facilities for its citizens.

This local government wants to reduce the digital divide in its area so that its residents have better access to information about its services and their use.

1 (a) Identify and describe **four** online services that local governments may offer their citizens.

*For
Examiner's
Use*

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(b) (i) Describe what is meant by the “digital divide”.

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..... [2]

(ii) Explain **three** ways by which the local government can reduce the effects of the digital divide and improve access to their services.

Way 1

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Way 2

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Way 3

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..... [6]

Scenario 2
Question 2*For
Examiner's
Use*

Ahmed is the owner of a company that sells computers and components.

Ahmed has decided to use internet auction websites to sell his goods. The auction sites will handle a lot of data which will need to be kept secure.

2 (a) Describe **five** steps that Ahmed would take when using an internet auction website for the first time to sell the components and computers.

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(b) Describe **three** security issues that could arise when using internet auction websites.

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Scenario 3
Questions 3 to 8

Sumptuous Hotels is a company that owns and runs a worldwide chain of hotels.

The company has an intranet for use by the managers and booking staff. They use it to transfer information about bookings and available rooms between hotels.

The hotels have facilities for disabled persons in many rooms.

The company has a website that allows customers to research and book accommodation online. The online booking system has facilities for use by disabled persons.

Each hotel room has an entertainment system for guests to watch television programmes or listen to radio. Guests can also access the hotel's video-on-demand system.

Guests may use their own MP3 players or CD players to listen to music by connecting the players to the entertainment system in their room.

The hotel managers have asked market researchers to carry out research into the guests' use of the entertainment system to find out how the entertainment system might be improved so that more guests will use it.

Each hotel room has internet access for use by the guests. Internet access in each room is provided by WiFi or fixed cabling with sockets in the room.

3 (a) (i) Explain what is meant by an “intranet”.

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(ii) Identify **two** protocols that would be used on an intranet and state a different use for each.

Protocol 1

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Protocol 2

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(b) Describe ways that the employees at Sumptuous Hotels would use the intranet.

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(c) Describe **three** benefits to the company of having an intranet.

Benefit 1

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Benefit 2

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Benefit 3

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4 In order to make a booking, the customer logs onto the hotel website.

Describe the steps that a customer would take when using the website to book a room in a hotel for a holiday in Brazil.

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5 (a) Explain the problems that a disabled person might have when using the online booking system.

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(b) Describe **four** features that could be included in the website to make it easier to access by disabled people.

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6 (a) Explain what is meant by “video-on-demand”.

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(b) Describe **four** differences between the use of MP3 players and CDs for storing music in digital form.

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7 Describe **three** methods that market researchers could use to carry out research into the uses of the entertainment system by guests.

*For
Examiner's
Use*

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8 (a) Describe what is meant by “WiFi”.

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(b) Describe **three** differences between the use of WiFi and fixed cables in a hotel room to connect computers to the internet.

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