



## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS General Certificate of Education Advanced Level

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

# APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY Paper 1

9713/13

October/November 2010

1 hour and 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 **18** printed pages and **2** blank pages.



#### Scenario 1 Questions 1 and 2

For Examiner's Use

The Queen Elizabeth Hospital uses ICT to help run its Intensive Care Unit. During the day the nurses work long shifts and find it difficult to get to a bank. They find it easier to use online banking with their existing accounts.

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1	Describe how computers are used to alert nurses to changes in the medical condition of patients in intensive care.
	[5]

2	(a)	Describe how a person who had not used their bank's online system before would register with this system once they had opened the bank's website.	For Examiner's Use
		[4]	
	(b)	Describe the features offered by online banking.	
		[4]	
		141	1

(c)	Discuss the benefits and drawbacks to the bank of operating online banking systems.	
	[8]	

#### Scenario 2 Questions 3 and 4

For Examiner's Use

Plyroc is an expanding company which supplies building materials such as house bricks, paving stones etc and offers buildings' insurance. It currently advertises using flyers and posters in the local community.

Plyroc would like, however, to advertise to a larger audience. It has a small advertising department with office based staff which has been asked to produce a slide show using presentation software. The slide show will be shown in a number of shopping malls.

3	Give reasons why the company and employees prefer to have workers work in an office based environment rather than working from home.
	[6]

4	(a)	Slide shows have features which are not found in flyers or posters.  Describe how <b>four</b> of these features could be used in the slide show.
		[4]
		[4]
	(b)	Using examples, describe these <b>three</b> advertising applications.
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#### Scenario 3 Questions 5 and 6

For Examiner's Use

The WIMBA car company has a computerised payroll system. It has a master file which contains details of each worker relevant to the payroll and this is updated weekly with the details stored in a transaction file.

As well as producing the payslips, the payroll system generates reports every time the payroll is

The manager of the payroll department uses time management software to help him arrange his workload.

5	(a)	The transaction file is used to update the master file when creating payslips. Describe the steps in this process.	
		[6]	

(b)	Describe the contents of the financial and exception reports which are produced when creating payslips.
	[6]

6	Describe the benefits to the manager of using time management software to help arrange workloads.
	[5]

#### Scenario 4 Questions 7 and 8

For Examiner's Use

The Oxbridge International Examination Board is planning to use ICT to mark candidate answers to their examination papers.

They have employed lqbal to provide a systems life cycle approach to developing the new system. He has already researched the existing system and recorded information about it using a data flow diagram.

A database of candidates including their marks for each question will need to be created.

7	Describe what will happen in this system after the answers arrive at the examination board up until the point each candidate's final mark has been recorded.	For Examin Use
	[4]	1

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8	(a)	Describe how Iqbal will use the data flow diagram to <b>identify</b> suitable hardware and software for the new system.	
		151	

(b)	Describe the file structure that will need to be designed before the database is created.
	[6]

(c)	Discuss the possible implementation methods that could be used to introduce the new system.	For Examiner's Use
	[8]	

Compare and contrast the different methods Iqbal could use to obtain feedback from users so that he can evaluate the solution.
[6]

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