AQA

General Certificate of Education
Advanced Subsidiary Examination
June 2010

Information and Communication Technology INFO1

Unit 1   Practical Problem Solving in the Digital World

Tuesday 18 May 2010   1.30 pm to 3.00 pm

For this paper you must have your Sample Work
and attach it with a completed and signed Candidate
Record Form to this question paper/answer booklet at
the end of the examination.

Time allowed
● 1 hour 30 minutes

Instructions
● Use black ink or black ball-point pen. Use pencil only for drawing.
● Fill in the boxes at the top of this page.
● Answer **all** questions.
● You must answer the questions in the spaces provided. Do not write
  outside the box around each page or on blank pages.
● Do all rough work in this book. Cross through any work you do not want
  to be marked.

Information
● The marks for questions are shown in brackets.
● The maximum mark for this paper is 80.
● You will **not** gain credit for the use of brand names in your answers.
● Question 7 should be answered in continuous prose.
  In this question you will be marked on your ability to:
  – use good English
  – organise information clearly
  – use specialist vocabulary where appropriate.

Warning If you do not hand in both this question paper/answer booklet and
your Sample Work it may not be possible to issue a result for this unit.

Section A

Answer **all** questions in the spaces provided.

1 For each of the following tasks, name and justify what you consider to be the most suitable data input method to use.

1 (a) Automatic sorting of post using the postcode on each envelope

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(2 marks)

1 (b) Recording the answers from multiple-choice examination papers

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(2 marks)

1 (c) Producing a letter

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(2 marks)

6

2 Validation and verification techniques are used in the design of robust data entry.

Explain, giving examples, why these techniques are required.

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(6 marks)

6

Turn over for the next question

Turn over ▶

3   Describe, using examples, the current health and safety legislation as it relates to the use of ICT systems.

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(6 marks)

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4   Explain how the evidence from test results can be used in the evaluation of an IT solution to a problem.

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(3 marks)

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Section B

Answer **all** questions in the spaces provided.

5 Answer this question using the Sample Work that you have brought into the examination with you.

For this question:

- you **must** give the page number of where the evidence for your answer may be found in your Sample Work
- you **must** write the question number in the margin of that page in your Sample Work.

PROBLEM IDENTIFICATION

5 (a) Give the page number in your Sample Work where you describe the problem that required a solution.

Page ....
In your Sample Work, write '5(a)' in the margin of that page next to your evidence.

With reference to your Sample Work, describe the problem that required a solution.

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(2 marks)

5 (b) Give the page number in your Sample Work where you identify who needed the solution.

Page ....
In your Sample Work, write '5(b)' in the margin of that page next to your evidence.

With reference to your Sample Work, identify who needed the solution.

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(2 marks)

Turn over ▶

5 (c) For the solution that you were asked to produce for your Sample Work, describe the input, processing and output required.

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(12 marks)

Question 5 continues on the next page

Turn over ▶

TESTING

5 (d) Give the page number in your Sample Work showing where you specify test data.

Page ....
In your Sample Work, write '5(d)' in the margin of that page next to your evidence.

Identify **three** items of test data you have used and justify why you selected each one.

Your justification must be different for each one.

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(9 marks)

25

Turn over for the next question

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ANSWER IN THE SPACES PROVIDED

Turn over ▶

6   'Digital cameras make taking large numbers of photographs much easier than did the old film cameras. As a result, personal collections of digital images have become much larger. Printing digital images and saving image files correctly are important parts of preserving these digital memories.'

Source: IMAGE PERMANENCE INSTITUTE

6 (a)   Describe appropriate media and devices that are available to store the photographs, and justify why the items you have selected would be appropriate for preserving digital memories.

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(8 marks)

6 **(b)** Describe appropriate methods and devices that are available to output the photographs, and justify why the items you have selected would be suitable to display digital images.

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(6 marks)

14

Turn over for the next question

Turn over ▶

7   A student is leaving home to start an apprenticeship later this year. His parents plan to purchase a laptop computer and appropriate software for him to take. They do not know what software to buy because they do not understand the role and functions of either systems software or applications software.

They have asked you to explain to them, with the use of examples, the role and functions of both systems software and applications software so they can make a decision on what software to buy.

In this question you will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

(20 marks)

This space is available for planning your answer, if you wish to use it.

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Turn over ▶

END OF QUESTIONS

20

There are no questions printed on this page

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ANSWER IN THE SPACES PROVIDED