Please write clearly in block capitals.

Centre number ________________________________ Candidate number ________________________________

Surname ________________________________

Forename(s) ________________________________

Candidate signature ________________________________

AS
INFORMATION AND COMMUNICATION TECHNOLOGY

Unit 1 Practical Problem Solving in the Digital World

Monday 6 June 2016 Morning Time allowed: 1 hour 30 minutes

Materials
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.

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.
• Question 8 should be answered in continuous prose.
• In this question you will be marked on your ability to use good English, organise information clearly and 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. State three input devices that could be used to prevent unauthorised access to an ICT classroom. [3 marks]

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2 (a) At what stage of providing the solution to the problem would you need to ask yourself the following questions:

Does the solution do what it is supposed to do?
Does the solution do it in the way it is supposed to do it? [1 mark]

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2 (b) What is the purpose of asking these questions? [2 marks]

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Turn over for the next question
Selecting appropriate software is very important when using ICT to solve a problem.

Give an example of a problem you have solved, stating the software you used and explaining how the functionality of the software helped you to produce an effective solution.

[7 marks]
4 Cloud storage is the chosen storage method for many people.

Describe the benefits of using cloud storage.

[3 marks]

5 Explain why a computer user needs a height-adjustable chair and an ergonomic keyboard when they are working with ICT?

[4 marks]
Section B

Answer all questions in the spaces provided.

6 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.

6 (a) With reference to your Sample Work, describe the problem that your client needed a solution for.

[2 marks]

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6 (b) Explain what is meant by a user.

[2 marks]

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6 (c) Describe one investigation method used to identify the skills of the user of your solution. [2 marks]

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Question 6 continues on the next page
6 (d) Give the page number in your Sample Work where you have included your inputs, processes and outputs.

Page...........
In your Sample Work, write ‘6(d)’ in the margin of that page next to your evidence.

For one of the outputs produced in your solution describe the process(es) required and the inputs needed.

[6 marks]
6 (e) Give the page number in your Sample Work where your test plan starts.

Page...........

In your Sample Work, write ‘6(e)’ in the margin of that page next to your evidence.

With reference to your testing, describe tests you have completed to ensure the validity of data input, the accuracy of the output and the presentation of the output. [12 marks]

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7 (a) Explain, using examples, what is meant by validation and verification. [6 marks]

Question 7 continues on the next page
7 (b) A group of friends are using a local travel company to organise a three-week tour to Australia in 2016, leaving the UK on 21 October. Devas Tours has recently produced a website for online booking. They are trying to encourage people to sign up to the website and enter their personal data as they are in the process of moving away from a paper-based data entry form, shown in Figure 1.

Figure 1

You have been asked to plan an online booking form to capture the personal data.

Explain the validation and verification you could include in your online form to support robust data entry.

[10 marks]
You are a young entrepreneur setting up a business in your local community.

Discuss the hardware, software and communication technologies you would need to purchase before you start trading.

[20 marks]

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.

This space is available for planning your answer, if you wish to use it.
There are no questions printed on this page
There are no questions printed on this page.

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