



Rewarding Learning

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
January 2009

Centre Number

71	
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Candidate Number

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Information and Communication Technology

Assessment Unit AS 2

assessing

Module 2: Components of Information and Communication Technology

[ASW21]

FRIDAY 23 JANUARY, MORNING



ASW21

TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.
Write your answers in the spaces provided in this question paper.
Answer **all eight** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 90, including a maximum of 4 marks for quality of written communication.
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
QWC	

Total Marks	
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1 A joystick is used in a computer game.

(a) Explain how data is captured using a joystick.

[4]

(b) Describe **two** advantages of using a joystick instead of the keyboard to play a game.

1. _____

2. _____

[4]

Examiner Only	
Marks	Remark

3 A large university uses a WAN.

(a) Explain the main difference between a WAN and a LAN.

[2]

The WAN includes a firewall and a proxy server.

(b) Describe **two** reasons why a firewall is used on a network.

1. _____

2. _____

[4]

(c) Describe **two** reasons why a proxy server is used on a network.

1. _____

2. _____

[4]

Examiner Only	
Marks	Remark

4 A computer user must complete the following onscreen form.

Screen 1

Surname*

Date of birth
d d m m y y

* denotes a required field

Examiner Only	
Marks	Remark

(a) Explain the purpose of data validation.

_____ [2]

(b) By referring to the screen, name and describe **two** validation checks.

Validation check _____

Description _____

_____ [2]

Validation check _____

Description _____

_____ [2]

(c) Explain the purpose of data verification.

[2]

(d) Explain how data verification is used **in this case**.

[2]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

6 (a) Describe the main features of each of the following:

A menu interface

[3]

A command line interface

[3]

Examiner Only	
Marks	Remark

(b) Describe how a number of copies of a report could be printed using each of the following:

A menu interface

[3]

A command line interface

[3]

Examiner Only	
Marks	Remark

7 Consider the following data capture form.

Name	Pat Smith
Age (in years)	28
Home owner	N
Income	£15,000

Identify and justify the most suitable data representation for each of the following:

Name

Representation _____

Justification _____

_____ [2]

Age

Representation _____

Justification _____

_____ [2]

Home owner

Representation _____

Justification _____

_____ [2]

Income

Representation _____

Justification _____

_____ [2]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

8 A library stores details about its music collection in a database using the following tables.

Table 1

AlbumID	Album Title	Artist	No. of Tracks
A101

Table 2

SongID	Song Title	Composer
S101

Table 3

SongID	AlbumID
S101	A101

(a) By referring to the above tables explain what is meant by

A key field _____

 _____ [2]

A composite key _____

 _____ [2]

Examiner Only	
Marks	Remark

(b) Explain how these tables will be linked in the database.

_____ [3]

(c) Describe how the librarian could search for the names of all the songs on a particular album where the **AlbumID** is known.

_____ [3]

(d) Describe how the librarian could produce a list of the names of all songs by a particular artist.

_____ [5]

Examiner Only	
Marks	Remark
Quality of written communication	

