



Rewarding Learning

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
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 12 JUNE, AFTERNOON

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 seven** 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	
QWC	

Total
Marks

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2 The computers in an office are linked as a network.

(a) Describe **two** disadvantages of networking the computers.

1. _____

_____ [2]

2. _____

_____ [2]

An ICT consultant suggests a star network rather than a bus network.

(b) Without drawing diagrams, describe each of the following network topologies.

Star _____

_____ [3]

Bus _____

_____ [3]

Examiner Only	
Marks	Remark

(c) Describe how each of the following topologies will be affected by cable failure.

Star _____

_____ [2]

Bus _____

_____ [2]

Examiner Only	
Marks	Remark

3 One of the functions of the arithmetic and logic unit (ALU) is to perform arithmetic calculations.

(a) Describe **two** other functions of the ALU.

1. _____

_____ [2]

2. _____

_____ [2]

(b) Identify **two** other components in a typical processor and state the purpose of each.

Component _____
Purpose _____
_____ [2]

Component _____
Purpose _____
_____ [2]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

(b) Explain how the employer could use this spreadsheet for 'what if' calculations.

[3]

Examiner Only	
Marks	Remark

5 A software package includes a Graphical User Interface and a Command Line Interface.

(a) Explain how each of the following is used in a typical Graphical User Interface.

Icons _____

_____ [3]

Menus _____

_____ [3]

Windows _____

_____ [6]

Examiner Only	
Marks	Remark

(b) Describe **two** drawbacks with a Command Line Interface.

1. _____

_____ [2]

2. _____

_____ [2]

Examiner Only	
Marks	Remark

6 Students enrol for a course by completing an application form.

Each student is allocated a unique PIN which includes a check digit.

(a) Name and describe **three** other types of validation check.

Name _____

Description _____

Name _____

Description _____

Name _____

Description _____

_____ [6]

(b) Explain how a check digit should detect a transposition error in a PIN.

_____ [3]

Examiner Only	
Marks	Remark

Data from these forms is keyed into a database.

(c) Explain the purpose of data verification.

_____ [2]

(d) Name and describe a verification check which could be performed **in this case**.

Name _____

Description _____

_____ [2]

Examiner Only	
Marks	Remark

7 A retailer holds sales data in a flat file.

The data held about a sample sale is shown in the table below.

The retailer wishes to replace the flat file with a normalised database.

Sales Order Form				
Invoice No:	1234			
Date:	08/08/08			
Customer Ref:	8765			
Name:	Green			
Address	12 New Lane Any Town			
Tele:	901212121			
Fax:	902122121			
E-mail:	gr@green.co			
Product No:	Description	Quantity	Unit Cost (£)	Cost (£)
100	Screwdriver	4	5.00	20.00
102	Hammer	5	6.00	30.00
103	Saw	6	7.00	42.00
104	Spirit level	7	8.00	56.00
Invoice Total				148.00

(a) Describe **two** problems that can arise with data which is not normalised.

1. _____

_____ [2]

2. _____

_____ [2]

Examiner Only	
Marks	Remark

