



Rewarding Learning

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2011

Centre Number

71	
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Candidate Number

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Information and Communication Technology

Assessment Unit AS 1

assessing

Module 1: Components of ICT

[AW111]



TUESDAY 7 JUNE, MORNING

TIME

2 hours.

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 five** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120 marks including a maximum of 5 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

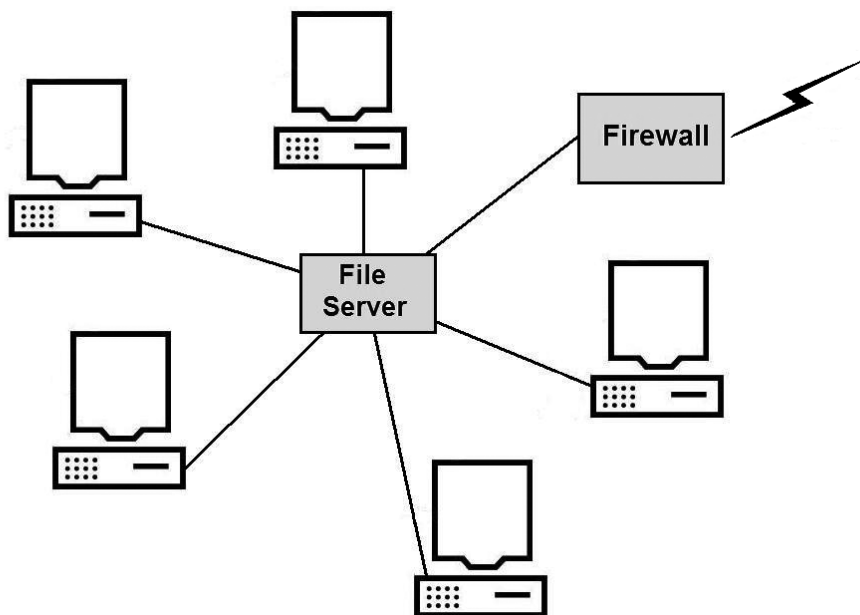
Question Number	Marks
1	
2	
3	
4	
5	
QWC	

Total Marks	
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6535

1 Consider the following star network.



(a) Identify **three** of the main tasks performed by the file server.

1. _____

2. _____

3. _____
_____ [3]

(b) Describe **two** main features of the firewall.

1. _____

2. _____

_____ [4]

Examiner Only	
Marks	Remark

(c) Fibre optic cabling is used in this network.

Identify **four** benefits of using fibre optic cable for network communication.

1. _____

2. _____

3. _____

4. _____

[4]

(d) Describe the additional resources required to convert the network into a wireless network.

[4]

Examiner Only	
Marks	Remark

(e) Describe the main features of a bus/star composite network.

[4]

Examiner Only	
Marks	Remark

2 The diagram below shows an input screen used in a Health Centre.

Patient Record

Patient ID	42137
First name	Terri
Surname	Green
Date of birth (dd:mm:yy)	01 : 08 : 91
Gender (M/F)	F

Edit
Save

(a) By referring to the shaded box, explain what is meant by

Data _____

Information _____

_____ [4]

Examiner Only	
Marks	Remark

(b) For each of the following fields, identify and describe the most suitable validation check.

Surname

Validation check _____

Description _____

Gender

Validation check _____

Description _____

Month

Validation check _____

Description _____

[6]

Examiner Only	
Marks	Remark

(c) The last digit in the Patient ID is a modulus 11 check digit.

If the Patient ID **42137** is keyed in as **42237**, show how this error will be detected.

[6]

(d) Explain how verification is used in this input screen.

[3]

Examiner Only	
Marks	Remark

(e) The Health Centre is registered with the Data Protection Agency.

Identify **four** principles of data protection legislation.

1. _____

2. _____

3. _____

4. _____

[4]

Examiner Only	
Marks	Remark

3 A lecturer uses presentation software to prepare a lesson.

(a) Describe the main features of presentation software which make it suitable for creating and presenting a slide show.

[6]

(b) The lecturer uses an interactive white board and a data projector.

(i) Describe the main features of an interactive white board.

[3]

Examiner Only	
Marks	Remark

(ii) Describe the main features of a data projector.

_____ [3]

(c) The lecturer keeps a working copy of the slide show on a CD.

(i) Describe how data is written to and read from a

CD-R _____ [6]

CD-RW _____ [6]

(ii) Explain why a CD-RW is more suitable than a CD-R **in this case**.

_____ [2]

Table with 2 columns: Marks, Remark

(d) The lecturer uses a multi-tasking operating system.

Identify **four** main features of a multi-tasking operating system.

1. _____

2. _____

3. _____

4. _____

_____ [4]

Examiner Only	
Marks	Remark

4 An information system is being developed.

(a) An ICT consultant investigates the feasibility of the new system.

(i) Explain what is meant by **technical** feasibility.

 [3]

(ii) Name and briefly describe **two** other types of feasibility the consultant should consider.

Name _____

Description _____

Name _____

Description _____

 [4]

Examiner Only	
Marks	Remark

(b) The development team includes programmers and end users.

(i) Describe the role of the programmer during software development.

[3]

(ii) Describe the role of the end user during acceptance testing.

[3]

Examiner Only	
Marks	Remark

(c) Name and describe **two** different types of documentation produced during system development.

Name _____

Description _____

Name _____

Description _____

_____ [8]

Examiner Only	
Marks	Remark

(d) The changeover method for the new system has to be decided.

(i) Describe one benefit of parallel running over direct changeover.

[2]

(ii) Describe one drawback of parallel running over direct changeover.

[2]

Examiner Only	
Marks	Remark

5 (a) Https is used to ensure the security of online transactions.

(i) Describe the main features of https.

[3]

(ii) Name and describe one other method used to secure online transactions.

Name _____

Description _____

[4]

(b) User IDs and passwords can be used to control access to data.

Identify **three** reasons why a user ID and password system might be ineffective.

1. _____

2. _____

3. _____

_____ [3]

Examiner Only	
Marks	Remark

(c) Internet pages can be created using HTML.

Describe the main features of HTML.

[4]

Examiner Only	
Marks	Remark

(d) Airlines use simulators for training pilots.

(i) Describe **three** benefits of using a simulator to train pilots.

1. _____

2. _____

3. _____

_____ [6]

(ii) By referring to specific hardware, explain how ICT is used in a typical airline simulator.

_____ [4]

Examiner Only	
Marks	Remark
Quality of Written Communication	

THIS IS THE END OF THE QUESTION PAPER

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