



Rewarding Learning

ADVANCED
General Certificate of Education
January 2013

Centre Number

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Candidate Number

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**Information and
Communication Technology**
Assessment Unit A2 1
assessing
Module 3: Information
Systems

[AW211]

MONDAY 21 JANUARY, MORNING



AW211

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.

Complete in blue or black ink only. **Do not write in pencil or with a gel pen.**

Answer **all six** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120 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.

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2 Custom-built software can be developed using the waterfall model or by RAD.

(a) Describe the main features of

The waterfall model _____

RAD _____

[8]

Examiner Only	
Marks	Remark



3 Organisations must ensure that employees comply with ICT legislation.

(a) Describe the main implications of each of the following for employees.

The Copyright, Designs and Patents Act

The Computer Misuse Act

[8]

Examiner Only	
Marks	Remark



4 A university has a number of campuses, each with its own library.

(a) The libraries use different sources of information when ordering books for an ICT course.

(i) Identify and justify an internal source of information the libraries could use.

Source _____

Justification _____
_____ [2]

(ii) Identify and justify an external source of information the libraries could use.

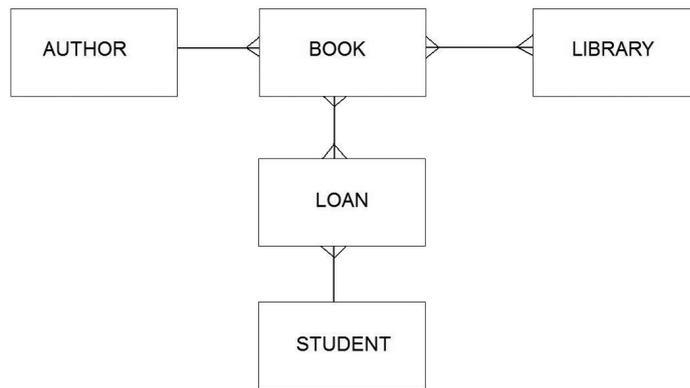
Source _____

Justification _____
_____ [2]

Examiner Only	
Marks	Remark



(d) The following ER model was produced during the design of the library database.



In the space below, modify this ER model so that it can be implemented in a relational database.

Examiner Only	
Marks	Remark

[6]



(c) **01101010** includes a parity bit.

An error occurs when this byte is transmitted and it is received as **01101110**.

(i) Describe how this error will be detected.

[2]

(ii) Explain the consequences if the byte is received as **00001010**.

[2]

(d) The manager of a network suspects that a database is being modified without authorisation.

Describe how the network manager could use software to identify those responsible.

[4]

Examiner Only

Marks

Remark

[Turn over





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

Total Marks	
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Examiner Number

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