



Rewarding Learning

ADVANCED  
General Certificate of Education  
2014

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

[AP211]

\*AP211\*

MONDAY 2 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.

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

Answer **all seven** 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.

8755



\*24AP21101\*

1 Checksums and encryption are used when data is transmitted over a client server network.

(a) Describe the main features of a client server network.

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[4]

(b) Explain what is meant by data encryption.

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[4]

Examiner Only	
Marks	Remark



(c) Explain how checksums can be used to detect errors in data transmission.

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[4]

An organisation uses a distributed database.

(d) Describe the main features of a distributed database.

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[4]

Examiner Only

Marks	Remark

[Turn over





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**2** A publisher uses a relational database to produce information essential to the running of the business.

**(a)** Explain what is meant by

Data inconsistency \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Data independence \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Data integrity \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [6]

Examiner Only	
Marks	Remark



(b) Three of the entities in the database are BOOK, AUTHOR and AGENT.

- Each book can have one or more authors
- An author can write multiple books
- Each agent represents a number of authors
- No author is represented by more than one agent

Draw an entity relationship (ER) diagram for these entities that does not contain a many-to-many relationship.

Examiner Only	
Marks	Remark

[7]

[Turn over

8755



\*24AP21107\*

(c) Describe **three** different costs involved in producing information.

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

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[6]

Examiner Only

Marks Remark

Total Question 2

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\*24AP21108\*





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**[Turn over**

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\*24AP21109\*

3 CASE tools are used during the development of a new information system.

(a) Describe **two** main features of a graphics CASE tool.

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

[4]

(b) Explain how a project management CASE tool could be used during software development.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

[4]

Examiner Only	
Marks	Remark





The new system undergoes testing and maintenance.

(c) Explain what is meant by each of the following:

Alpha testing \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Acceptance testing \_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_ [6]

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Marks	Remark

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[Turn over



\*24AP21111\*



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4 An organisation uses a management information system (MIS) to assist decision-making.

(a) Describe the main features of a typical MIS.

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[4]

(b) Name and describe **three** levels of decision-making.

1. Name \_\_\_\_\_

Description \_\_\_\_\_

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2. Name \_\_\_\_\_

Description \_\_\_\_\_

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3. Name \_\_\_\_\_

Description \_\_\_\_\_

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[6]

Examiner Only	
Marks	Remark

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**5** Employees can access a company's intranet.

**(a)** Explain the difference between an intranet and the Internet.

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[4]

**(b)** Explain **two** reasons why the company does not allow the use of portable storage devices.

1. 

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2. 

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[4]

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**Marks**

**Remark**









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**[Turn over**



**6** A network manager uses a command line interface.

**(a)** Describe the main features of a command line interface.

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[4]

**(b)** Describe the main features of a form driven interface.

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[4]

Examiner Only	
Marks	Remark



(c) An on-line training course is available for end users.

Describe how ICT can be used to provide on-line training.

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[4]

Examiner Only	
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Total Question 6	

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\*24AP21121\*





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\*24AP21123\*

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

<b>Total Marks</b>	
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Examiner Number

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\*24AP21124\*

