

Cambridge
International
A Level

Cambridge International Examinations
Cambridge International Advanced Level

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APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

9713/32

Paper 3

October/November 2016

1 hour 15 minutes

Candidates answer on the Question Paper.

No additional materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

Do not use staples, paper clips, glue or correction fluid.

You may use an HB pencil for any diagrams, graphs or rough working.

DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

The number of marks is given in brackets [] at the end of each question or part question.

The businesses described in this paper are entirely fictitious.

This document consists of **17** printed pages and **3** blank pages.

Scenario 1**Questions 1, 2 and 3**

A local government uses its website to provide online services for citizens.

The online services are stored on a web server situated on a protected segment of the government's local area network (LAN). Citizens access the services from the internet to look at information provided by the government and to apply for official documents.

Ali is the IT manager responsible for the maintenance of the website and file server.

Ali can use his laptop to access the servers from the LAN or remotely using the internet when he needs to carry out maintenance on the servers.

- 1 Describe the purpose of **four** network hardware devices that could be found on the government LAN.

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- Describe how Ali could transfer the information from the memory stick (pen drive) to the web server using his laptop.

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- [2]

Scenario 2**Questions 4, 5 and 6**

Wadz bank is used by customers for personal online banking.

Customers have accounts that can be accessed and maintained by logging into the bank's secure website.

Gupta works in the head office of the bank. He sometimes travels to the offices of customers to give advice.

Gupta uses the bank's expert system to help him when he is giving advice to customers on investments and financial planning. He can access the expert system while in his office and via the internet while visiting customers.

- 4 (a) Describe, in detail, the banking activities that a customer could carry out when maintaining their account online.

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- (b) The bank stores the phone number of each of its customers. Explain how the bank could use these details to help prevent fraud.

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5 Authentication and authorisation are used when a customer logs into an online bank account.

(a) (i) What is meant by authentication?

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(ii) What is meant by authorisation?

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(b) Describe the authentication techniques that the bank might use with its online accounts.

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- Explain how Gupta could access the expert system securely via the internet.

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Scenario 3**Questions 7 and 8**

Liene is physically disabled.

She uses her computer for online banking and online shopping.

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[6]

Scenario 4**Questions 9, 10, 11, 12 and 13**

Kemoko is a company that produces ointments for supply to pharmacies to sell to the general public.

The company has created a new ointment for treating insect bites.

Anthea, a marketing manager, has created a leaflet to explain to the public the benefits of the new ointment. She has created the leaflet on her computer.

Anthea has sent the draft leaflet to Mick, a marketing assistant, and asked him to thoroughly check it to ensure that it is error-free and conforms to the company house-style.

Anthea is advertising the new ointment in the media to try and increase sales.

Anthea would also like feedback from the public. She plans to use both paper-based and online questionnaires to gather the feedback.

- 9 (a) Describe how Mick could manually check that the leaflet is error-free.

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- (b) Mick uses a spell checker to check the leaflet.

Describe how a spell checker works.

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10 Explain why the leaflet should conform to the company house-style.

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