



# Cambridge International AS & A Level

CANDIDATE  
NAME

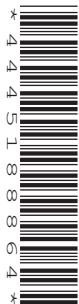
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**INFORMATION TECHNOLOGY**

**9626/13**

Paper 1 Theory

**May/June 2020**

**1 hour 45 minutes**

You must answer on the question paper.

No additional materials are needed.

## INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You may use an HB pencil for any diagrams, graphs or rough working.
- Calculators must **not** be used in this paper.

## INFORMATION

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **16** pages. Blank pages are indicated.

- 1 (a) Tick the most accurate statement referring to the internet.

|   |   |
|---|---|
|   | ✓ |
| The internet is a collection of web pages which can be accessed using a web browser |   |
| The internet is the global system of interconnected computer networks               |   |
| The internet is only accessed using a switch  |   |
| The internet is an internal restricted access network                               |   |

[1]

- (b) Tick the most accurate statement referring to the services the internet provides.

|  |   |
|--|---|
|  | ✓ |
| Word processing is a service only accessed using the internet      |   |
| Spreadsheet software is a service only accessed using the internet |   |
| The World Wide Web is a service only accessed using the internet   |   |
| Email is a service only accessed using the internet                |   |

[1]

- (c) The internet is a type of WAN. Describe what is meant by a WAN.

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- 2 (a) Tick the most accurate statement referring to video files.

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|   | ✓ |
| It is only possible to export a video file using the file format it has been created in |   |
| Video files are often stored in jpeg format   |   |
| It is possible to convert a video file into a gif format                                |   |
| It is <b>not</b> possible to insert a still image into a video file                     |   |

[1]

- (b) Tick the most accurate statement referring to the use of features of video editing software.

|  |   |
|--|---|
|  | ✓ |
| It is <b>not</b> possible to alter the speed of a video once it has been saved                         |   |
| Trimming a video clip is achieved by removing unwanted footage   |   |
| It is <b>not</b> possible to add sound to a video once the video is finished                           |   |
| An aspect ratio is the number of frames in a section of a video compared to the total number of frames |   |

[1]





5 Companies often carry out investigations into the public's likes and dislikes. Investigations such as this can be done using direct sources or indirect sources of information.

(a) Describe the advantages of gathering data from indirect data sources.

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(b) Describe the disadvantages of gathering data from indirect data sources.

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- 8 The North Indonesian Motor Company makes cars in the city of Jakarta. It has a large factory producing the components, for the cars in the city of Surabaya. Dian is the director of communications in Jakarta. He has been asked by the other directors to set up a video-conference so that they can communicate with the directors based at Surabaya.

The directors in both cities currently use computers in a LAN to carry out their work.

- (a) Give reasons why the current arrangement of computers would not enable Dian to set up a video-conference and explain how he would overcome this problem.

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- (b) Describe how codecs would be used in the transmission of data within a video-conference.

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9 There are two types of encryption, symmetric and asymmetric.

(a) Describe the use of public keys and private keys when used in the asymmetric method of encryption.

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(b) Apart from the types of keys used, give **two** reasons why symmetric encryption is preferred in certain situations.

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10 Lastri uses spreadsheet models for her company. She uses them to forecast trends of sales of particular products as well as forecasting the company's annual income, expenditure and profits.

By weighing up the advantages and disadvantages, evaluate the effectiveness of spreadsheet models when used specifically for this type of forecasting.

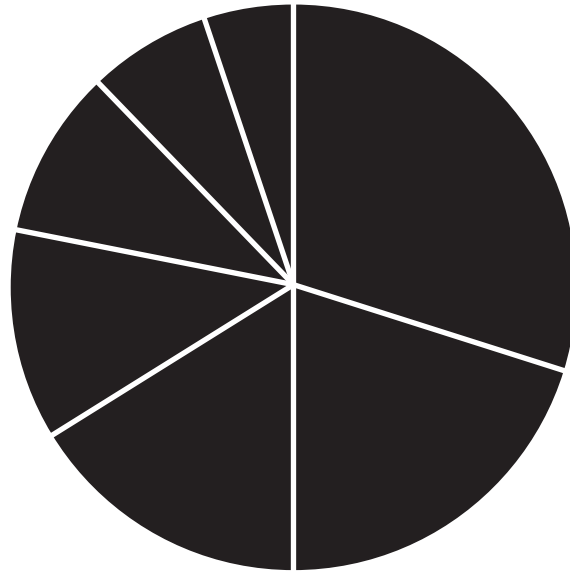
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[8]









The pie chart shows the land areas of seven continents. In its present form it is not providing any information.

- (a) Describe, using examples related to this scenario, how you would improve this chart so that it will provide information which could be used by geography students in a school.

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Please turn over for Question 14(b).

(b) Some people are very critical about pie charts.

Describe the disadvantages of using pie charts to represent data.

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