



Cambridge International AS & A Level

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NAME

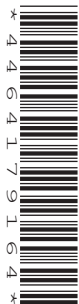
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CENTRE
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INFORMATION TECHNOLOGY

9626/11

Paper 1 Theory

October/November 2022

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 70.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages. Any blank pages are indicated.

1 Computers often have utility software supplied with the operating system.

Explain what is meant by utility software and why it is needed.

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..... [4]

2 Sandeep works for a company which uses software to help protect its computer systems against malware. The company is looking for additional ways to minimise the effects of malware. Sandeep and the other workers have already been advised on good practice when logging on and how to use emails safely.

Describe other methods the company can instruct workers to use so that malware can be prevented from entering its computer systems.

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..... [4]

- 3 Most companies use transaction files to update master files in their payroll systems. One part of the updating process is to calculate weekly or monthly pay. Another part is to update workers' personal and work details.

Without referring to the calculation of pay, describe the three types of transaction that would take place when workers' details are being updated. You must give an example for each type of transaction.

Transaction type 1:

Example 1:

Transaction type 2:

Example 2:

Transaction type 3:

Example 3:

[6]

7 Spreadsheet models can be used to forecast the population growth of humans.

Analyse the effectiveness of using a spreadsheet model for this purpose.

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9 Jose has a greenhouse to grow his plants. He lives in a country which has a warm climate so the greenhouse does not need a heater but has microprocessor controlled windows and a temperature sensor.

(a) Describe how the sensor represents the temperature so the computer can read the data.

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..... [1]

(b) Complete this pseudocode algorithm to show the processing which takes place to control the temperature of the greenhouse.

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WHILE system switched on  
  INPUT temperature  
  IF temperature > preset  
    THEN  
      IF window closed  
        THEN
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