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Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

INFORMATION TECHNOLOGY **9626/04**

Paper 4 Advanced Practical **February/March 2018**

2 hours 30 minutes

Additional Materials: Candidate Source Files:
account.html
customers.csv
letter.rtf
letterT.png
prices.csv
questions.rtf
tree.png

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READ THESE INSTRUCTIONS FIRST

DO **NOT** WRITE IN ANY BARCODES.

Carry out **every** instruction in each task.
Save your work using the file name given in the task as and when instructed.

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

Any businesses described in this paper are entirely fictitious.

You must **not** have access to either the internet or any email system during this examination.

You must save your work in the correct file format as stated in the tasks. If work is saved in an incorrect file format, you will **not** receive marks for that task.

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You are working for a holiday company called Treeside Holidays. They own a number of holiday apartments and villas that they rent out to customers.

Alice is the manager of Treeside Holidays.

All files produced must be of a professional standard and suit the business context. All currency must be displayed in dollars ($) to 0 decimal places. You must use the most efficient method to complete each task.

You have been provided with the following files:

account.html
customers.csv
letter.rtf
letterT.png
prices.csv
questions.rtf
tree.png

Alice wants a short animation that can be used to advertise Treeside Holidays.

1 **(a)** Create an animation that meets the following requirements:

- The size must be set to 512 pixels wide by 288 pixels high.
- The top half of the background must be set to light blue.
- The bottom half of the background must be set to light green.
- The image **tree.png** must be resized to 140 pixels wide by 170 pixels high and placed like this:



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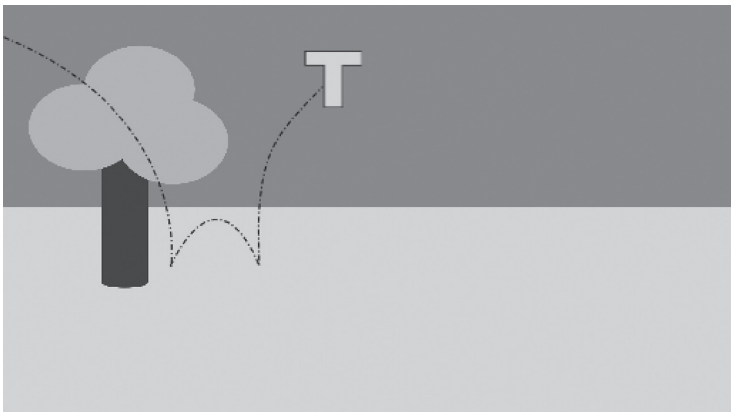
- After 2 seconds the image **letterT.png** must enter from the top left side of the frame, pass in front of the tree and bounce twice on the light green area, following the path shown:



As *letterT.png* follows the path, it must rotate clockwise twice. It must then stop in the light blue area, as shown. The timing for this must be 3 seconds.

- The text **Treeside Holidays** must appear as shown. The image *letterT.png* must be used as the letter 'T' in Treeside. The remaining text must be black, 28pt and appear one letter at a time. The timing for this must be 5 seconds.



- The animation must be:
  - smooth
  - 10 seconds long
  - set to loop
  - exported in a suitable format to be used on a website. [22]

(b) Morphing is often used in animation. Describe what is meant by the term morphing and explain how a morphing effect is created. Use no more than 150 words. Place this in a word processed document and save it with the name **task_1b_** followed by your Centre number_your candidate number

e.g. task_1b_ZZ999_9999 [4]

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[Turn over

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Alice wants a spreadsheet to calculate a quote for the cost of renting a holiday apartment or villa.

2 (a) Open the file **prices.csv**

In the column **AccommodationID** create an ID for each accommodation that joins together the **Accommodation_type**, **No_of_bedrooms** and **Style**

Save the file as a spreadsheet with the name **prices_** followed by your Centre number_your candidate number

e.g. prices_ZZ999_9999

Open a new worksheet in *prices* and set up the layout of the spreadsheet as follows:

	A	B
1	Type of accommodation	
2		
3	Number of bedrooms	
4		
5	Style of accommodation	
6		
7	Number of nights	
8		
9	Holiday quote	
10		

Edit the spreadsheet to meet the following requirements:

- The type of accommodation must be selectable from a validated list in cell B1. The different types of accommodation can be found in the *prices* worksheet.
- The number of bedrooms must be restricted to only allow numbers between 1 and 4 (inclusive) in cell B3.
- The style of accommodation must be selectable from a validated list in cell B5. The different styles of accommodation can be found in the *prices* worksheet.
- The number of nights must be restricted to only allow up to 3 weeks to be entered, in cell B7.
- A formula must be entered into cell B9 to calculate the price of the holiday. The data must be looked up from the *prices* worksheet.
- If the number of nights rented is greater than 7 nights, a discount of 10% must be applied to the holiday quote in cell B9.

Select the following values in your spreadsheet to be displayed:

- Type of accommodation – Villa
- Number of bedrooms – 3
- Style of accommodation – Standard
- Number of nights – 10

Save your spreadsheet with the correct values displayed. [25]

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(b) Spreadsheets can often be used to create models. Select two features of modelling software and evaluate how useful they are. Use no more than 250 words. Place this in a word processed document and save it with the name **task_2b_** followed by your Centre number_your candidate number

e.g. task_2b_ZZ999_9999 [6]

Alice wants a letter to send to customers to tell them about some events that the company has planned.

3 Using the file **letter.rtf** follow the instructions in the file to mail merge a letter to customers. The data for customers can be found in the file **customers.csv**

The following requirements must also be met:

- Letters should only be sent to customers who have said yes (y) to being on the mailing list.
- Lucy Walters and Joseph Scofield do not need a letter as Alice has recently spoken to them about the events.
- Where the letter requires conditional text to be entered the following must be displayed:
    - If a customer is interested in renting an apartment, display the text **Come and see our fantastic new apartments. They are very stylish and very affordable.**
    - If a customer is interested in renting a standard villa, display the text **Come and see our fantastic new villas. They are very stylish and very affordable.**
    - If a customer is interested in renting a luxury villa, display the text **Come and see our fantastic new luxury villas. They are the best around.**
- Display the conditional text in a 12pt serif font.

Save the document with your merge codes as **customer_letter_merge_** followed by your Centre number_your candidate number

e.g. customer_letter_merge_ZZ999_9999

Perform the mail merge to create the letters. Save the merged letters as **event_letters_** followed by your Centre number_your candidate number

e.g. event_letters_ZZ999_9999 [25]

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Alice wants customers to be able to create an account with Treeside Holidays. She wants them to create the account using a webpage.

4 (a) Using the file **account.html** create a webpage to meet the following requirements:

- When the 'Generate Username' button is clicked a username for the customer is generated below the button.
- The customer's username must be their forename, their surname and the year of their birth (yyyy) joined together.
- When the 'Submit Password' button is clicked the page must be rewritten to display only one of the following messages:
  - If the passwords match the text **Your password has been set** must be displayed.
  - If the passwords do not match **Your passwords did not match, please try again** must be displayed.
- Programmer comments must be added to annotate each requirement.

Save your webpage as **myaccount.html** [20]

(b) Open the file **questions.rtf** and enter your answers to the following questions, on programming, in the place indicated in the document:

1. Describe what is meant by a function in programming. Use no more than 150 words. [4]

2. A string of text has been stored in the variable 'word'.

var word = "ICT is amazing"

Give the answer that would be extracted for each of the JavaScript commands.

(i) word.length

(ii) word.slice(8,11)

(iii) word.charAt(3)

(iv) word.substr(7,7)

Save your document as **Answers**_followed by your Centre number_candidate number.
For example: Answers_ZZ999_9999 [4]

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