



# Cambridge International AS & A Level

**INFORMATION TECHNOLOGY**

**9626/04**

Paper 4 Advanced Practical

**October/November 2020**

**2 hours 30 minutes**



You will need: Candidate source files (listed on page 2)

## INSTRUCTIONS

- Carry out **every** instruction in **each** task.
- Save your work using the file names given in the task as and when instructed.
- You must **not** have access to 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 you save work in an incorrect file format, you will **not** receive marks for that task.

## INFORMATION

- The total mark for this paper is 110.
- The number of marks for each task or part task is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

You have been supplied with the following source files:

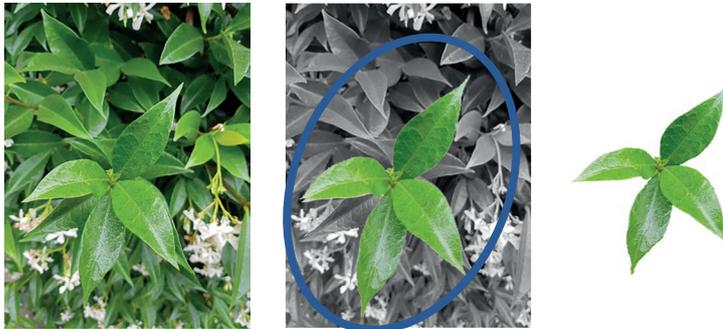
**Bush.jpg**  
**Branches.png**  
**Artists.csv**  
**ArtWork.csv**  
**CommCalc.html**

Create a folder called **Examination**. You must save all your work in this folder.  
 Copy these files into this folder.  
 Do **not** delete these files when submitting your work.

*You must use the most efficient methods to solve each task and all work produced must be of a professional standard and contain your candidate details.*

1 Use suitable graphics software to carry out the following tasks:

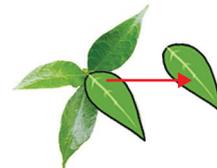
(a) Extract the 4-leaf cluster from the **Bush.jpg** image.



Save the extracted image with a transparent background as **4leaves\_** followed by your centre number\_candidate number  
 e.g. 4leaves\_ZZ999\_9999

[13]

(b) Create a vector drawing of this single leaf as shown here.



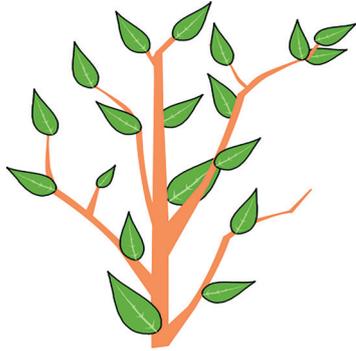
The drawing must match the shape and colour of the original leaf as closely as possible.

Save the drawing in a **Scalable Vector Graphics** (.svg) format as **Leaf\_** followed by your centre number\_candidate number  
 e.g. Leaf\_ZZ999\_9999

Export the image in a **bitmap** format with a width of 50px named **BitmapLeaf\_** followed by your centre number\_candidate number  
 e.g. BitmapLeaf\_ZZ999\_9999

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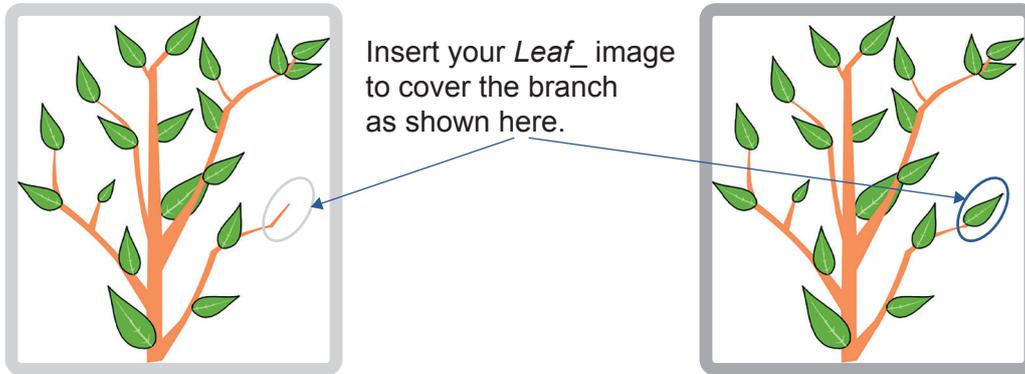
(c) Use your *Leaf\_* image and the **Branches.png** file to create an image to match the one shown here.



Save the image with a size of 400px by 400px, in a **transparent bitmap** format, as **Shrub\_** followed by your centre number\_ candidate number  
e.g. Shrub\_ZZ999\_9999 [9]

2 In an animation application set the canvas/frame/stage size to 400px by 400px.

Insert your *Shrub\_* image.

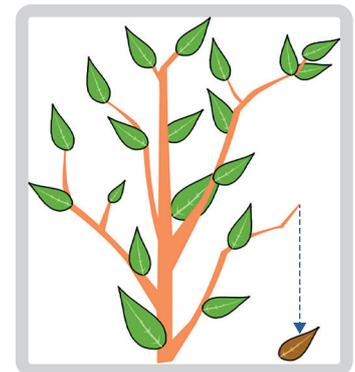


Animate the leaf image to turn from green to brown in 1 second. 

Animate the brown leaf to fall to the bottom of the frame in 1 second.

The animation should play automatically, but should stop when the brown leaf reaches the bottom of the frame.

Export the animation as **LeafDrop\_** followed by your centre number\_ candidate number as an **animated gif** or a **Shockwave Flash (.swf)** file  
e.g. LeafDrop\_ZZ999\_9999 [20]





- 4 Open the **CommCalc.html** file in a browser.

*You are required to complete this page to display the commission to be charged when data is entered and the Display Commission button is clicked.*

*Users must be able to change the values in the Sale price boundaries input boxes and the Artwork Price input box and recalculate the commission.*

Open the file in a text editor.

Insert JavaScript code to calculate the commission.

The value of the commission must be displayed in an appropriate place on the page using the text:

**Commission for a sale of £ArtPrice value will be £commission value**

Example:

## Art Work Sales Commission Modelling

**Enter Sale price boundaries**

Sale prices below £  will be charged 5% commission

Sale prices equal to this value and up to £  will be charged 10% commission

Sale prices above this value will be charged 12.5% commission

**Enter Artwork Price:**

£

**Commission for a sale of £60 will be £6**

Add programmer's comments to your code to explain key stages.

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