Cambridge International AS & A Level

INFORMATION TECHNOLOGY **9626/04**

Paper 4 Advanced Practical **For examination from 2020**

SPECIMEN PAPER **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 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.

INFORMATION
- The total mark for this paper is 110.
- The number of marks for each question or part question is shown in brackets.

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

[Turn over

You have been supplied with the following files:

Applications.rtf
BasicBookingForm.html
Evidence.rtf
LibraryProject.rtf
Peaceful.jpg
Vacancies.rtf
Wildlife.png
Woodland.png

You are required to complete an Evidence Document. It should include details of your work as specified.

All files that you save should include your centre number and candidate number: e.g. Evidence_XX999_1234

You are going to create some digital resources for a company named Woodland Homes.

1   (a)   *Woodland Homes is a small residential complex of 3 buildings each with 6 apartments. They intend to set up a library for residents to borrow books. They want to use a database to maintain a list of books and track loans.*

More details of the project are available in the file **LibraryProject.rtf**
Open the file and take note of the requirements.

Create a database structure named **WoodlandSchema** to meet the requirements detailed in the file, with the structure normalised to third normal form. Do **not** enter any data.   [13]

(b)   Save a copy of the WoodlandSchema database as **WoodlandDevelopment**
This will be used to develop and test the database.

Create a form to view the borrowers and the books they have on loan.
Add appropriate navigation buttons to the form.

Books can be borrowed for 14 days.
Create a report to display a list of books that are overdue.

The report should be grouped by the borrowers and display the:
• title, forename and surname of the borrower
• date the book was borrowed
• number of days the book is overdue
• title and the author of the book.

Insert your name, centre number and candidate number in the page footer of the report: e.g. A Candidate_XX999_1234

Enter suitable data to test the form and the report with at least 3 borrowers.
At least 1 of the borrowers should have borrowed more than 1 book.   [12]

2 **Applications.rtf** contains details of people who have asked for information about apartments at Woodland.

There are no vacancies for single apartments.
There is one vacancy for a double apartment in Ash House.
Letters are required for only those who have not yet been sent a reply.

Use **Vacancies.rtf** as a template to mail merge replies and insert fields and text where indicated.

In your Evidence Document, include details of any methods you use to create the source data for the mail merge.

Letters to those who requested information about the availability of a single apartment should display the text **We regret there are no single apartments available at the moment.**

Letters to those who requested information about the availability of a double apartment should display the text **We have one vacancy for a double apartment in Ash house.**

The letter should close with either **We will notify you when vacancies arise.** or **Please ring the office to arrange a viewing.**
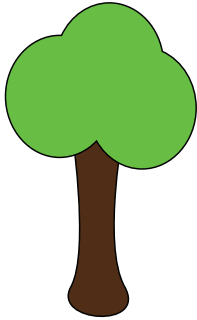
Save the merge document as **Vacancies Mergedoc_** followed by your centre number and candidate number: e.g. Vacancies Mergedoc_XX999_1234

Save the merged letters as **Vacancy Replies_** followed by your centre number and candidate number: e.g. Vacancy Replies_XX999_1234

Ensure the letters are formatted consistently and are of a professional standard.   [15]

3 *Woodland Homes intends to add rfid tags to the books.*
Create an image for a sticker to cover the tag.

Reproduce these images of a tree and a flower using a vector graphics application.

The tree must consist of 3 overlapping light green circles for the foliage and a brown rectangle for the trunk.
Join the circles to make a single shape with a 1pt black outline.
Position the top of the tree trunk behind the foliage.
Convert the rectangle to curves and flare the trunk as shown

The flower must consist of 3 dark green leaves with a light green stem positioned as shown.
The bloom must be coloured yellow with a white centre and shaped as shown.

Duplicate the tree twice and arrange the three trees as shown here.

Create a path to position the text **Woodland** as shown.
Do **not** show the path in the completed image.
The text should be in a sans-serif font, coloured white with a 1pt black outline.

Add the text **Homes** in a red sans-serif font with a black outline.

Insert correctly sized images of the flower in the positions shown.

Pay particular attention to the order of the objects within the final image.

Group the objects and resize the image to 250 pixels (px) wide and 200 pixels (px) high.

Save the image in a non-proprietary **scalable vector graphics format** as **Woodland Image_** followed by your centre number and candidate number: e.g. Woodland Image_XX999_1234

Export the image as a **bitmap** file using the same filename.   [35]

4 *Woodland Homes wants an animated advert for their website.*

The advert should be 500px wide and 300px high.
It should consist of three clips each lasting 2 seconds and play continuously.

Clip 1 should fade in **Woodland.png** as the background and display the text **Woodland**

Clip 2 should set **Peaceful.jpg** as the background and display the text **Set in peaceful countryside**

Clip 3 should display **Wildlife.png** as the background and display the text **Lots of wildlife**
The clip should fade out to about 50%.

All text should be in the centre of the image in a white sans-serif font. The text should double in size during each clip.

Export the animation in a suitable file format for including in a web page.

Use the filename **Woodland Advert_** followed by your centre number and candidate number: e.g. Woodland Advert_XX999_1234   [25]

5 *Woodland Homes is going to hold library introduction sessions for the residents.*
They want residents to book the sessions on their intranet.

The web page has been started and saved as **BasicBookingForm.html**
Open the page in a browser to view the form.

Test the form with the following entries:
House = Oak
Name = Mary Dunn
Number of people = 2
Session = 3

Amend the code in the form to meet the following requirements:

- Entries in the House input box should be limited to the house names: Ash, Birch and Oak.
  No entry or any other entry should result in the error message
  Please enter the correct house name: Ash, Birch or Oak.

- Any other input box left empty should result in the error message
  Please complete all the information.

- The text in the final alert should match the number of people booking, for example **1 person** or **2 people**

Save the Form as **NewBookingForm_** followed by your centre number and candidate number:
e.g. NewBookingForm_XX999_1234   [10]

Save your Evidence Document.

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