

INFORMATION TECHNOLOGY

Paper 2 Practical

9626/02

May/June 2017 2 hours 30 minutes



- Additional Materials:
- Candidate Source Files: Evidence.rtf TTSMerge.csv TTSPay_Scales.csv Branch_Analysis.csv Bee.mp4 Countryside.mp3 DoveCall.wav Flowers.mp4 Leaves.mp4

READ THESE INSTRUCTIONS FIRST

DO NOT WRITE IN ANY BARCODES.

Carry out **every** instruction in each task. Save your work using the file names 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.

This document consists of **5** printed pages and **3** blank pages.



You are working for Tawara Technology Solutions (TTS). You are required to carry out some data handling and media tasks. You must use the most efficient method to solve each task. You are required to complete the Evidence Document called **Evidence.rtf**

All files saved should include your Centre number and candidate number; e.g. Evidence_XX999_1234

2

The company is going to centralise the management of several European branches. You have been provided with the following files: TTSMerge.csv TTSPay_Scales.csv Branch Analysis.csv

Details of staff in the branches are in the file **TTSMerge.csv** Open the file to inspect the data. Re-save the file as a spreadsheet named **TTSMerge_Centre number_candidate number**

 (a) Insert a row above the data. Set the row height to 51 points. Merge the cells in columns A to D of this row. In the merged cell, insert a function to display the current date and time. Format the date and time like this: Tuesday 21 November 2017 09:45

> Merge the cells in columns E to I of this row. Insert your Centre number and candidate number in the merged cell.

Display both merged cells in an 18 point sans-serif font and ensure all the data and text is fully visible.

Save the spreadsheet.

[6]

(b) It has been decided to use a different mail server for the company. All the new addresses will end in @tts.com

Each email address will have a new format. For example, *Evie Barber* will become e.barber@tts.com

Use formulae to replace all the addresses in the file. Ensure they are all lowercase.

Save the spreadsheet.

[5]

(c) Analyse the method of generating the new email addresses and identify the problem that this method causes.

In your Evidence Document:

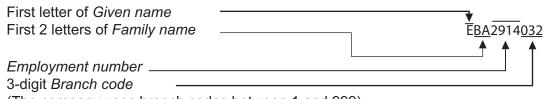
- describe the problem
- describe a method to automatically detect this problem
- give an example of an email address that is affected
- suggest a method of correcting this address.

Correct the addresses and save the spreadsheet.

Place in your Evidence Document screenshots of the corrected email addresses.

(d) All staff will have a new payroll number as shown below:

Given name	Family name	Email	Employment number	Payroll number	Pay scale	Branch code
Evie	Barber	e.barber@tts.com	2914	EBA2914032	C3	32



(The company uses branch codes between 1 and 999)

Use formulae to generate the new payroll numbers. Save the spreadsheet.

[7]

(e) TTS have introduced a new pay structure for the company. The Pay scale is used to determine the pay using TTSPay_Scales.csv Open this file and inspect the data.

In your TTSMerge file, insert formulae in the *Pay* column to display the pay for each member of staff.

Display the Pay column as Euros (\in) with 0 decimal places.

[10]

(f) For each branch, display subtotals for the total pay and the average pay.

Members of staff on the **E** pay scale are members of the company executive. Their pay must **not** be included in the subtotals but their data must **not** be deleted from the spreadsheet.

Save the spreadsheet as Pay Centre number candidate number	[6]

(g) The subtotals for each branch should be recorded in the *Branch_Analysis* file. The data in this file must update automatically and reflect any changes to staff pay.

[4]

(h) Create a chart displaying both the *Total pay* and *Average pay* for each branch. Label the chart appropriately. Display the *Average pay* values.

Save the Branch_Analysis file.

[6]

(i) In your Evidence Document answer the following question:

What is the difference between a spreadsheet formula and a spreadsheet function? Give an example of each from your TTSMerge file.

[4]

2 TTS has been commissioned to create a short video to promote a forthcoming Protecting Nature conference in London during January 2018.

You have been provided with the following files: Leaves.mp4 Flowers.mp4 Bee.mp4 Countryside.mp3 DoveCall.way

You are required to create the video for showing with an aspect ratio of 16:9 (Widescreen) and a resolution of 1280 × 720 pixels.

There must be a transition between the video clips.

The new video must begin with:

- a title clip, 4 seconds long
- the text **Protecting Nature** displayed for 2 seconds
- the text **January 2018** displayed for the remaining 2 seconds.

The text must be in a white 48pt sans-serif font and in the centre of the frames.

Add the **Leaves.mp4** video clip after the title frames.

Trim the clip so that it is 5 seconds long.

Add the caption **A chance to hear about how to protect our environment** in the same white 48pt sans-serif font and in the centre of the frames.

Add the **Flowers.mp4** video clip after the *Leaves* clip.

Trim the *Flowers* clip so that it is 7 seconds long with the caption **An international conference with noted scientists** in the same white 48pt sans-serif font and in the centre of the frames.

Add the **Bee.mp4** video clip after the *Flowers* clip.

Trim the Bee clip to end after the bee leaves the frame.

Add the caption **London** to appear after 1 second and show for 3 seconds.

Add the caption **January 2018** to show for the remainder of the clip. The text must be in a black 48pt sans-serif font.

These captions must be centre aligned at the bottom of the frames.

Save or export the movie as **NatureConference.mp4**

[35]

3 (a) You are required to add a soundtrack to the movie.Open the file Countryside.mp3 in an audio editing application.

Convert the sound file to monophonic. Edit the audio clip so that only birdsong can be heard. Amplify the sound to the maximum volume without clipping.

Choose an appropriate section and trim the audio to the same duration as the movie created in task 2.

Insert the **DoveCall.wav** audio clip in two of the quieter periods of the soundtrack file without extending the length of the clip.

Export the audio as **Soundtrack128.mp3** at 128 kbps. Add the *Soundtrack128.mp3* file to the movie and resave the movie.

[12]

(b) Open the DoveCall.wav file.
Export the audio as DoveCall128.mp3 at 128kbps.
Export the audio as DoveCall256.mp3 at 256kbps.

In your Evidence Document answer the Audio questions. Save your Evidence Document.

[8]

BLANK PAGE

6

BLANK PAGE

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.