Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

INFORMATION TECHNOLOGY	**9626/04**
Paper 4 Advanced Practical	**October/November 2018**
	2 hours 30 minutes

Additional Materials: Candidate Source Files

delivery_table.csv
JSTask.html
Nov18evidence.rtf
PlateTemplate.svg

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.

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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[Turn over

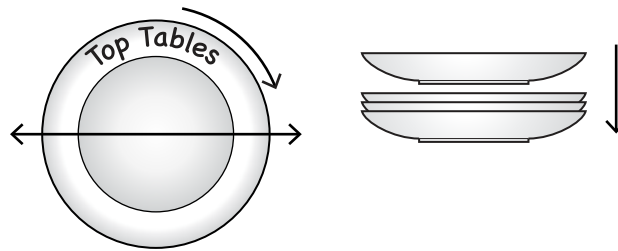*You are working for Tawara Technology Solutions (TTS).*
TTS have commissions from Top Tables, a company that supplies furniture and tableware for parties and events. You are part of a team preparing digital resources and support for Top Tables.

You are required to include evidence of your work and answer the questions in the **Nov18evidence.rtf** document.
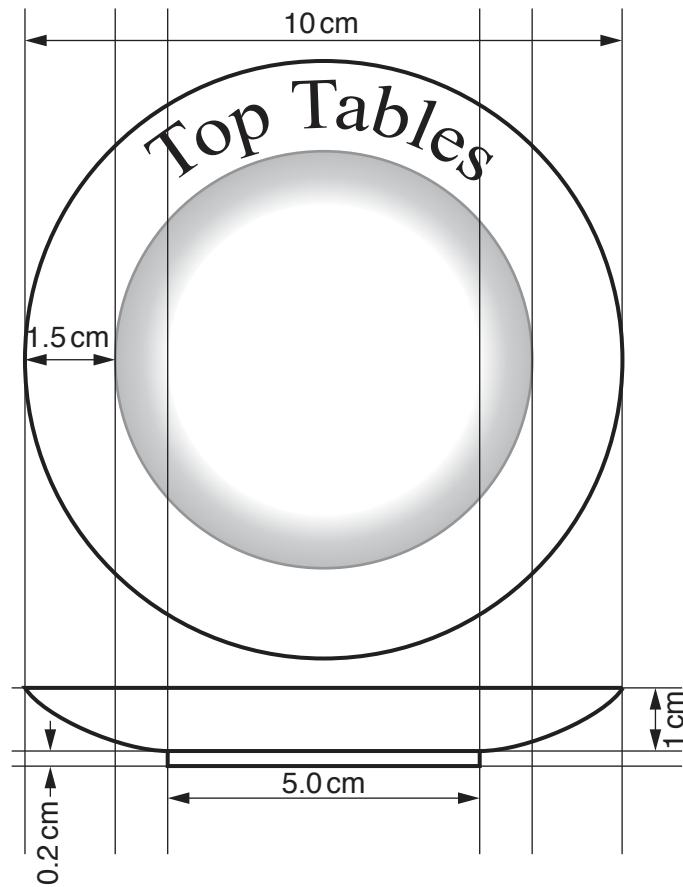Resave this document as **Evidence_Centre number_candidate number** e.g. Evidence_ZZ999_9999

Top Tables require the preparation of some media elements that could be used in promotional material. They have supplied some sketches of objects they need creating in a graphics application.

They need some animated media for their website. They want to show a plate rotating and changing in size and also plates falling to create a stack.

1 • Create this image showing 2 views of a plate with the dimensions shown.

- The plate must be white with black 3pt outline.
- There must be shading to indicate the depth of the plate.
- The text on the plate must be in a 36pt serif font.
- Do **not** display the dimensions on your image.

Place a screen shot of the image, showing any guidelines that you used, in your Evidence Document.

Save the image in a scalable vector graphics format as **PlateViews_Centre number_candidate number** e.g. PlateViews_ZZ999_9999

Export only the face view of the plate as a 100px by 100px bitmap with a transparent background as **PlateFace_Centre number_candidate number** e.g. PlateFace_ZZ999_9999

Export only the side view of the plate with a width of 100px as a bitmap with a transparent background as **PlateSide_Centre number_candidate number** e.g. PlateSide_ZZ999_9999

- Examine in detail the images shown in your Evidence Document.

    Each image contains two elements. Each element is either vector or bitmap. Answer the following questions in your Evidence Document.

    ◦ Describe a simple way to identify whether an element of an image is vector or bitmap.

    ◦ For each image, name the type of each element and the type of the image.

	Element type		Image type
Image A	Bowls:	Text:	
Image B	Bowls:	Text:	
Image C	Bowls:	Text:	
Image D	Bowls:	Text:	

- Open the graphics file **PlateTemplate.svg** in your browser.
    Open the file in a text editor. Analyse the contents of the file. In your Evidence Document, identify the changes required to reduce the shaded section of the plate to half the current width.
    Make these changes using a text editor.
    Save a copy of the file as **NewPlate_Centre number_candidate number**
    e.g. NewPlate_ZZ999_9999, in a **scalable vector graphics format**.

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2 • In a suitable application create an animation of the *PlateFace* image spinning clockwise in the centre of a 200px by 200px frame.

The plate should grow to fill the frame during the first rotation and shrink to the original size during the second rotation. Each rotation should take two seconds.

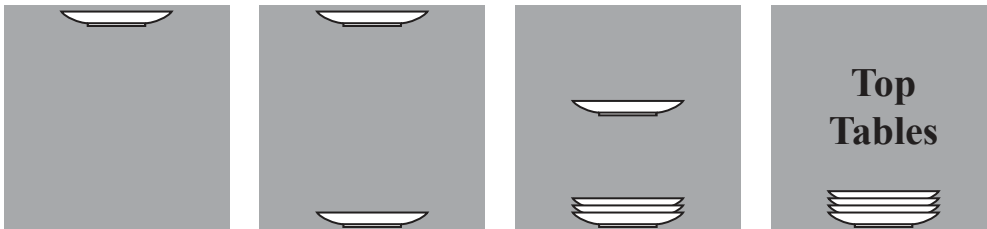The animation should play continuously.
Save the animation as an **animated gif** file named
PlateSpin_Centre number_candidate number e.g. PlateSpin_ZZ999_9999

• In a suitable application create an animation using *PlateSide* images falling from the top centre of a 200px by 200px frame to make a stack of four plates.

Each plate will take about two seconds to fall to the stack.

After the fourth plate reaches the stack, the text **Top Tables** must appear in the centre of the remaining space and remain for two seconds. The text must be in a red 36pt serif font.

The animation should play continuously.
Save the animation as an **animated gif** file named
PlateDrop_Centre number_candidate number e.g. PlateDrop_ZZ999_9999

[30]

Top Tables use a database to keep records of their customers and orders. They need help to include calculations of the added charges for hires lasting more than 48 hours.

To show how to include calculations, you are required to create a database table that includes a calculation of the length of the hire in hours (Duration) and a calculation of the added charge (Surcharge).

3 • Create an example database named
TTDeliveryCharges_Centre number_candidate number
e.g. TTDeliveryCharges_ZZ999_9999
Top Tables have exported some data from the delivery table of their database as
delivery_table.csv
Use this data to create a new table in the database.

Top Tables have provided the following information about the surcharge:

Duration	Surcharge
48 hours or less	No charge
Over 48 hours	£20
Over 72 hours	£50

Add Duration and Surcharge fields to the table.

Make sure that:
   • the Duration is shown in hours as an integer
   • the Surcharge is shown in £ or GBP. If the (£) sign is not available, select any available currency sign.

• You are required to create a database form to display each record. The form should have the title **Top Tables Duration Surcharge Calculations**

Make sure that:
   • all dates are formatted as dd/mm/yyyy
   • the data is shown in ascending order of delivery date
   • the height and width of each field is appropriate
   • there are suitable labels for each field.

Early delivery times require special arrangements.

Format delivery times before 9 am as white text on a red background in order to draw attention to these bookings.

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4 *Top Tables need to train one of their employees to maintain their website. The employee is developing a script to register users.*

To register for access to their account, each user needs to enter their details and create a password. Their password must be at least five characters long and must be entered twice to avoid entry errors.

You are required to finish the script in the file **JSTask.html**
The script must:

- compare the passwords entered to check that they match
- check that the password consists of at least five characters
- display messages to the user as specified in the file.

The JavaScript code to check that the passwords match has been started but does not work.

You are required to correct and complete the script.
Include programmer's comments to explain your corrections and additions.
Save the file as **PasswordCheck_Centre number_candidate number**
e.g. PasswordCheck_ZZ999_9999

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5 Save your Evidence Document.

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