

Paper 2C

Marks

1. (a) (i) 3:2 1
- (ii) 600dpi: 1+1
 $8 \times 600 = 4800$
 $10 \times 600 = 6000$
2400dpi:
 $8 \times 2400 = 19200$
 $10 \times 2400 = 24000$
600 dpi should be chosen for the photos with the resolution 5472×3648 . Otherwise, the printouts of the photos on the 8R photo paper would be very small for using 2400dpi.
- Note: No calculation is required.
600dpi – larger printout / print quickly ✕
2400dpi – better quality ✕
- (b) GIF supports 8-bit colour depth while SWF supports 24-bit colour depth. (colour depth) 1×3
SWF supports interactive animation. (user input)
SWF supports audio/video.
GIF is bitmap graphic while SWF is vector graphic.
A plug-in is required for SWF.
- (SWF refers to Flash and GIF refers to animated GIF. ✕)
- (c) Toggle the colours of the image of the company name and 1
put the image on the top of the image of the camera figure. (copy the image of company name 1
and paste it on the image of the camera figure)
- (d) (i) Different versions of web browsers are used in the two computers. / 1
There is a missing font type in a computer.
- (ii) Convert the text as an image. / Recommend a version of web browser for best view. / 1
Recommend users to install a particular font type on their computers. /
Use CSS to control the font type.
- (e) The contents and compositions of the photos are different. 1
With the same compression method, the compositions of the compressed data of the photos are 1
different. (e.g. the number of colours) / After compression, the file sizes of the photos with
simple shapes and colour combination are smaller.
- (f) (i) Keep most data of the image. / No compression is applied. 1
(Better quality ✕)
- (ii) No dedicated software is needed for viewing TIFF files as TIFF is basically compatible with 1
most operating systems and photo editing applications. /
Since data in TIFF is already in an editable format, no conversion is needed before editing and
hence it has faster post processing. /
Its metadata is fully editable. / It can contain multiple images. /TIFF can maintain layers.
(contain metadata / no compression ✕)

		Marks
2.	(a) $\frac{44.1}{1000} \times 16 / 8 \times 2 \times \frac{60}{1024} / 1024$ = 10 MB	① 2
	(b) (i) Musical notes are editable. (It is easy to change instruments/notes.) Input musical notes directly in a computer and there is no need to invite musicians to play the instruments. The file has a smaller file size. There is no need to process human voice.	1×2
	(ii) Use an electronic instrument (MIDI input) such as a digital piano to record the school song and then edit the musical instrument/notes accordingly. / Use MIDI editing software to input musical notes to compose the school song.	1
	(c) Reduce the sampling rate. Reduce the number of channels. Reduce the sampling size. Increase the compression ratio.	1×2
	(d) Display the scroll bar / menu bar / status bar / toolbar / title bar / address field (location) / Set the position (top, left) / Make it resizable	1×3
	(e) (i) Embed the audio HTML code on the page for the <u>upper/lower frame</u> in Web Page A.	1
	(ii) Embed the audio HTML code on the page for the lower frame in Web Page A and <u>set the attribute 'loop'</u> .	1
	(iii) Embed the audio HTML code on <u>the page</u> that will be redirected <u>after login</u> .	1
	(iv) Embed the audio HTML code on the page for the <u>upper frame</u> in Web Page A.	1
3.	(a) Services using both user locations and cinema locations: Find the closest cinemas. Suggest routes to cinemas (time/distance/navigation). Navigation purposes (Suitable language settings, street view, finding user/cinema location only, checking cinemas for available seats. ✕)	1×2
	(b) (i) Server-side script -The data of the available seats is stored in the database in the server. (Concept of server-side ① + explanation ①) (Explanation about buying tickets such as updating the seats in database ✕)	1+1
	(ii) Client-side script - The checking/response time on the client-side is shorter. / Reduce the server loading. (Concept of client-side ① + explanation ①) (Checking the number of tickets is correct. / Server-side scripts are not needed. / Checking can be done by a browser only. / Higher efficiency. ✕)	1+1

- (c) (i) Iris scanning (iris), retinal scanning (retina), hand geometry (hand), palm veins (palm), voice/speech, facial recognition (face) 1
(pupil, eye ✕)
- (ii) Use a board with 4×4 dots. (more than 9 dots) / 1
Set a minimum number of dots to be connected. /
Hide the drawn lines.
(Add passwords or other forms of authentication. / Use more complicated patterns. ✕)
- (iii) Hackers cannot get the password by acquiring mouse click locations. / by hand movement / 1
Make sure that user is human / it is not a robot program.
(Stop key logger / hacker cannot keep trying login / it is difficult to get the password / increase security ✕)
- (d) ① Clearly display of thumbnails 3
e.g. suitable resolution for thumbnails / enlarge selected thumbnails for clear display
① user-friendly navigation
- Use suitable navigation menu (e.g. movie names, small thumbnails, Back & Next button) /
- Use one scrollbar or scrolling in one direction only (horizontal or vertical)
① Description of the use
- effective layout to arrange thumbnails and movie information
(movie information is shown when a thumbnail is clicked /
movie information is shown in new page when a thumbnail is clicked ✕)
- (e) ① Available seats: 3
- Suitable design (e.g. symbol, legend) to show available or unavailable seats /
- Suitable description to alert users that the seats are available or taken by others
① Illustrate how to select seats:
- Suitable design for simple seat selection (by clicking) (e.g. Zoom in button / Scrolling)
(Menu/textbox for selecting the seats ✕)
① show selected seats
- Suitable design for displaying seats (display selected seat clearly, e.g. seat numbers/symbols in seating plan)

		Marks
4.	(a) (i) Grouping, use of submenu	1,1
	(ii) - accessibility issues, ways to acquire the information (speech-to-text software) - shorter loading time - easier to edit the labels of the buttons - enhance searching (by keywords)	2*
	(b) (i) Keywords of the web page are added to a meta tag to increase the chance of being searched by search engines. Character encoding is added to a meta tag to direct the character encoding to be used for the display. (Alternatives: description of the web page, title, author, copyright, creation date, modification date, date of the latest update, refreshing web page, re-direction)	1×2
	(ii) Record the banner ads that were shown in the past so that other new banner ads can be shown for the next visit. (Record a piece of information ① + use for the next visit ①)	1+1
	(c) For each part of a tooth, create an area (a polygon) on the image and assign the corresponding hyperlink to that area. (Create an area ① + assign a link ①)	1+1
	(d) (i) The aspect ratios of videos and the screens are different.	1
	(ii) $\frac{20 \times 1024 \times 1024 \times 1024}{25 \times 24 \times 1280 \times 720 / 8}$ = 311 (289-311)	① 1, 1
	(e) ① check the correctness of the questions (if statement) ① accumulate the number of 'yes' ① loop for 10 times ① display the health condition according to the number of 'yes'	4

* Marking criteria

- ② Illustrate a comprehensive and logical answer
- ① Illustrate a relevant answer