2017 ICT Paper 2C

2Cq1ai

24 bit true color

RGB -- each 8 bit

#FFFFFF white

#00FF00 green

aspect ratio = 5472:3648 = 3:2

photo paper 8"x10"

paper orientation--landscape (橫,16:9, 4:3, 3:2) and portrait (直,3:4, document, 人像相 etc)

different aspect ratio

1. leave borders (fit-in)

2. crop some parts (fill-in)

2Cq1aii

5472x3648

case 1, use 600 dpi: 8'x10' photo needs 4800x6000 pixels

case 2, use 2400 dpi: 8'x10' photo needs 19200x24000 pixels

The image size is 5472x3648 which fits on using 600dpi.

If 2400dpi is used, the printed image will be very small in size.

2Cq1b

GIF supports only 8 bit colour depth while SWF supports 24 bit true colour.

SWF supports interactivity (script , buttons).

SWF supports audio.

SWF is vector graphic while GIF is BITMAP graphic

SWF animation uses keyframes to make motion tweens.

(keyframe1------------🡪keyframe2-------------🡪keyframe3----------🡪keyframe4)

GIF animation stores frames of bitmap graphics, basic unit of time=1/100s

2Cq1c

toggle a bit, 0🡪1, 1🡪0

toggle by program

|  |  |
| --- | --- |
| n=-1  x=x\*n  x=x\*n  x=x\*n  x=x\*n | **x=-x**  **x=-x**  **x=-x**  **x=-x** |

**step 1: Toggle** / Invert the colours of the text / Change the color of the text to white / Change the image of the company name to negative.

step 2: Put the image (text) on the top of the camera image.

step 3: Combine them together to form a single image.

How to remove background?

1. use magic wand to select the background. If the tolerance value(similarity value) is set to 30, more pixels/larger area of similar color will be chosen.

2. select the part of the image not selected by the magic wand./Select the unselected parts./Select the objects other than the background.

3. copy the image/objects and paste it on another image/background.

2Cq1di

Different versions of web browsers are used in two computers and they have different default settings. / The font used by the web page is missed in a computer.

2Cq1dii

Use CSS to link to an external font like Google font.

Upload the font to the website and use CSS to link and use the font.

Convert the text to an image. (larger file size, takes longer time to download)

Recommend users to install a particular font. (not practical)

spam / junk email / advertisement

Convert the text to an image and use HTML email to send the image.

The email is not filtered by the email server as spam.

2Cq1e

The contents / compositions of the photos are different.

The compression ratio for a photo with simple shapes and colour combination is smaller.

2Cq1fi

No compression/Lossless compression is applied by RAW, RAW can keep most data of the image.

2Cq1fii

RAW needs special software to view the image, TIFF is most common and has more software supports.

TIFF can contain multiple images. (used by scanner, but PDF is more common now)

TIFF -- store multiple images in a file, suitable for storing scanned multi-pages documents

GIF -- store multiple images in a file, support animation only

2Cq2a

留意kHz單位，留意時間單位

file size = 44100 x 60 x 16 x 2 bit

file size = 44100 x 60 x 16 x 2 / 8 / 1024 / 1024 MB

= 10.093 MB

2Cq2bi

The file has a smaller file size.

Musical notes are editable.

Musical notes can be input directly.

(A MIDI note stores note number, volume, duration of an instrument)

2Cq2bii

He can input musical notes directly using MIDI software.

He can play MIDI piano or other MIDI instruments and record the musical notes.

2Cq2c

reduce the sampling rate (standard CD quality = 44100Hz)

reduce the sample size (common values 24 bit, 16 bit (standard CD), 8 bit)

reduce the number of channels (change from stereo to mono)

2Cq2d

browser -- display scroll bar / menu bar / toolbar / address field / resizable

\* pop-up window

Users had to manage multiple windows/tabs on their screens because popup windows would open a separate window/tab on top of the user’s current window.

When a modal window opens, it opens inside the current page. This means that users only need to work within their browser window and don’t have to deal with extra windows popping up.

A lightbox popup is a popup that appears on top of the page's content while the rest of the website is inactivated and **dimmed out**. As such, they make sure the user **focuses** on the popup rather than the rest of the screen. **Better user experience**.

58 days -- use client side script to calculate the number of days

1. get the current date from the client side computer

2. number of days = grad.date - current date

2Cq2ei

Embed the audio HTML code on the page for the upper/lower frame in web page A.

2Cq2eii

Embed the audio HTML code on the page for the lower frame in web page A.

Set the **attribute** of the audio HTML code loop=true

SWF animation / GIF animation / sound effect / background music / video

2Cq2eiii

Embed the audio HTML codes on the web page after successful login.

2Cq2eiv

Embed the audio HTML code on the page for the upper frame in web page A.

annoying / volume / mute, bandwidth used

\*

<https://www.w3schools.com/html/html5_audio.asp>

In HTML5, there are 3 supported audio formats: MP3, WAV, and OGG.

**Plugins are not required.**

<audio controls>

<source src="horse.ogg" type="audio/ogg">

<source src="horse.mp3" type="audio/mpeg">

Your browser does not support the audio element.

</audio>