AS LEVEL 9618

Computer Science

Paper 1 Topical

WITH MARK SCHEME

JUNE 201, – JUNE 202'

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CONTENT
A LEVEL COMPUTER SCIENCE
TOPICAL P1

Topic 1. Information representation

1   **9618/13/M/J/23/Q7(a)**

A computer stores data in binary form.

(a) Draw **one** line from each description to its matching denary value.

Description	Denary value

Description

The smallest integer that can be represented in 8-bit two's complement.

The largest integer that can be represented in 8-bit two's complement.

The largest unsigned integer that can be represented in 8 bits.

Denary value

−127

127

−255

−128

−256

256

128

255

[3]

2   **9618/12/M/J/23/Q4**

Data in a computer is stored in binary form.

(a) State the number of unique binary values that can be represented in 16 bits.

.... [1]

(b) Give the 8-bit one's complement representation of the denary number −120.

Show your working.

Working ....

....

....

....
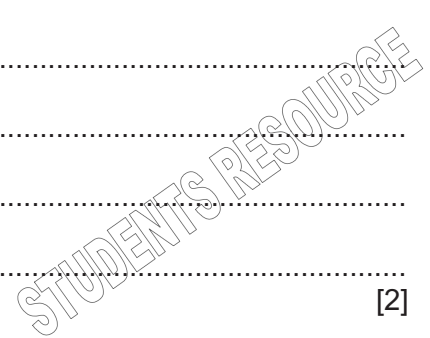
Answer ....
[2]

(c) Convert the hexadecimal number A04 into denary.

Show your working.

Working ....

....

....

....

Answer ....

[2]

(d) Show the result of a 2-place left logical shift on the binary number:

01001111

.... [1]

3   **9618/11/M/J/23/Q3(d)**

(d) The computer stores data in binary form.

(i) State the difference between a kibibyte and a kilobyte.

....

.... [1]

(ii) Convert the denary number 964 into Binary Coded Decimal (BCD).

....

.... [1]

(iii) Convert the positive binary integer 11110010 into hexadecimal.

....

.... [1]

(iv) Give the smallest **and** largest two's complement binary number that can be represented using 8 bits.

Smallest ....

Largest ....

[2]
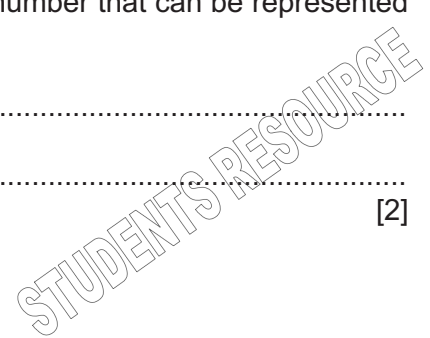
(v) Add the following two binary integers using binary addition. Show your working.

$$1\ 0\ 1\ 1\ 0\ 0\ 0\ 0$$
$$+\ 0\ 0\ 0\ 1\ 1\ 0\ 1\ 1$$

[2]

(vi) Show the result of a 3-place right logical shift on the binary number:

11001100

.... [1]

4   9618/11/M/J/23/Q1

Images are being created to advertise holidays.

Some of the images are bitmap images and some are vector graphics.

(a) Complete the table by defining the image terms.

Term	Definition
Drawing list	....
Pixel	....
Colour depth	....

[3]

(b) The bitmap images are photographs of the holiday locations.

(i) Colour depth and image resolution are both included in the file header of a bitmap image. Identify **two other** items that could be included in the file header of each photograph.

1 ....

2 ....

[2]
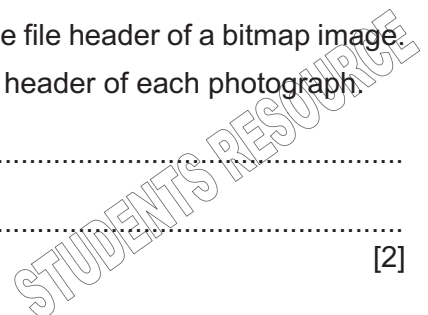
(ii) One of the photographs has a bit depth of 8 bytes and an image resolution of 1500 pixels wide and 3000 pixels high.

Calculate the file size of the photograph in megabytes. Show your working.

Working ....

....

....

....

File size ....MB

[2]

(c) The photographs are compressed before they are uploaded to a web server. Customers download the photographs from this web server.

(i) Explain the reasons why compressing the photographs will benefit the customers.

....

....

....

....

....

.... [3]

(ii) An image can be compressed using run-length encoding (RLE).

Explain the reasons why RLE may **not** reduce the file size of a bitmap image. Give **one** example in your answer.

....

....

....

....

....

.... [3]

5   9608/13/O/N/22/Q9

   (a) (i) Convert the unsigned binary value into hexadecimal.

<div align="center">

10010011

</div>

         Answer ....   [1]

      (ii) Convert the unsigned binary value into denary.

<div align="center">

10010011

</div>

         Answer ....   [1]

   (b) State **two** benefits of using Binary Coded Decimal (BCD) to represent values.

      Benefit 1 ....

      Benefit 2 ....

      ....

                                                                                                                       [2]

6   9608/13/O/N/22/Q1

   A digital audio message needs to be recorded.

   (a) Tick (✓) **one** box in each row to identify the effect of each action on the accuracy of the recording.

Action	Accuracy increases	Accuracy decreases	Accuracy does not change
Change the sampling rate from 40 kHz to 60 kHz.			
Change the duration of the recording from 20 minutes to 40 minutes.			
Change the sampling resolution from 24 bits to 16 bits.			

                                                                                                                       [2]

   (b) The audio message is recorded with a sampling rate of 50 kHz and a sampling resolution of 16 bits.

      The recording is 20 minutes in length.

      Calculate the file size of the recording.

      Give your answer in megabytes **and** show your working.

      Working ....

      ....

      ....

      Answer .... megabytes

                                                                                                                       [2]
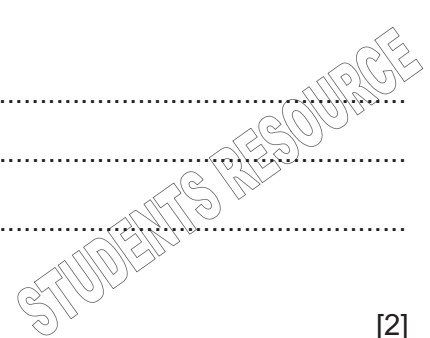
(c) A computer uses a buffer when playing the audio message.

Explain the purpose of a buffer in a computer system using **one other** example.

....

....

....

.... [3]

7 9608/12/O/N/22/Q8

The following bitmap image has a resolution of 4096 × 4096 pixels and a colour depth of 24 bits per pixel.
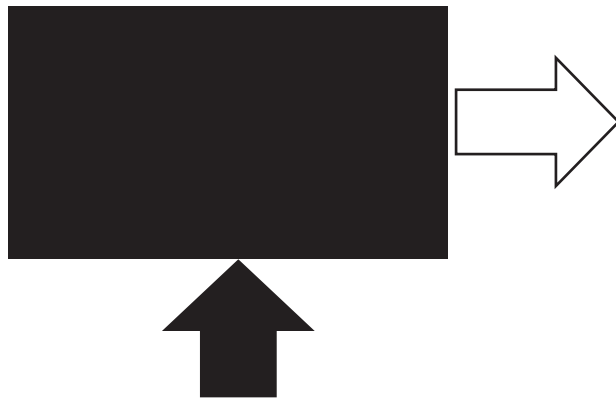
The image is displayed on a monitor that has a screen resolution of 1920 × 1080 pixels.

(a) Tick (✓) **one** box in each row to identify the effect of each action on the image file size.

Action	Increases the file size	Decreases the file size	No change to the file size
Change the colour depth of the image file to 16 bits per pixel.			
Change the screen resolution to 1366 × 768 pixels.			
Change the colour of the rectangle from black to red.			

[2]

(b) State **two** benefits of creating a vector graphic instead of a bitmap image.

1 ....

....

2 ....

....

[2]

(c) A second bitmap image is stored using a colour depth of 8 bits per pixel.

The file is compressed using run-length encoding (RLE).

(i) The table shows the compressed and uncompressed values for parts of the image file.

Each colour of the pixel in the image is represented by a hexadecimal value.

Complete the table. The first row has been completed for you.

Uncompressed image	RLE compressed image
EA F1 F1 F2 F2 F2 EA	1EA 2F1 3F2 1EA
	2AB 2FF 11D 167
32 32 80 81 81	

[2]

(ii) RLE is an example of lossless compression.

Explain why lossless compression is more appropriate than lossy compression for a text file.

....

....

....

.... [2]

8   9608/12/O/N/22/Q6

(a) A student uses a networked laptop computer to send an email to a colleague.

(i) Explain how a digital signature ensures the email is authentic.

....

....

.... [2]

(ii) Describe how a firewall protects the data on the computer.

....

....

....

....

.... [3]

(b) The student records a sound file.

(i) Explain the effect of increasing the sampling rate on the accuracy of the sound recording.

....

....

....

.... [2]

(ii) Explain the effect of decreasing the sampling resolution on the file size of the sound recording.

....

....

....

.... [2]

9   **9608/12/O/N/22/Q2**

(a) **(i)** Convert the two's complement binary integer into denary.

10010110

Answer ....   [1]

(ii) Convert the unsigned binary integer into hexadecimal.

10010110

Answer ....   [1]

(iii) Convert the unsigned binary integer into Binary Coded Decimal (BCD). Show your working.   10010101

Working ....

....

Answer ....

[2]

(b) Perform the following binary addition.

```
  1 0 0 0 1 1 0 0
+ 0 1 0 0 0 1 1 0
```

[1]
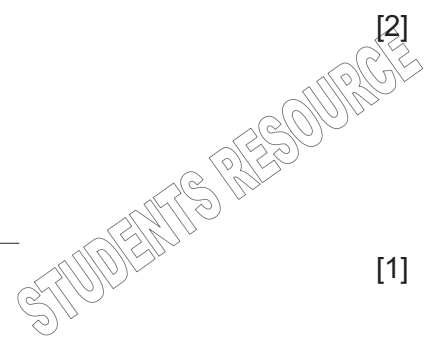
10   **9608/11/O/N/22/Q1**

(a) **(i)**   Convert the unsigned binary integer into denary.

<div align="center">

00100111
</div>

Answer .... [1]

  (ii)   Convert the Binary Coded Decimal (BCD) into denary.

<div align="center">

00100111
</div>

Answer .... [1]

  (iii)   Convert the 8-bit two's complement binary integer into denary.

<div align="center">

11100111
</div>

Answer .... [1]

(b) Perform the following binary subtraction. Show your working.

<div align="center">

1   0   1   1   0   0   1   1

−   0   1   1   1   0   1   0   1
</div>

[2]

(c) Give **one** similarity and **two** differences between the ASCII and Unicode character sets.

Similarity ....

....

Difference 1 ....

....

Difference 2 ....

....

[3]

(d) Sound samples are recorded and saved in a file.

  (i)   State what is meant by **sampling rate**.

....

.... [1]

  (ii)   Explain the effect of increasing the **sampling resolution** on the sound file.

....

.... [2]

11   9608/13/M/J/22/Q1

Text and numbers are examples of data stored in a computer.

(a) A character set is used to represent characters in a computer.

(i) Describe what is meant by a **character set**.

....

....

....

.... [2]

(ii) Identify **two** character sets and state **one** difference between them.

Character set 1 ....

Character set 2 ....

Difference ....

....
[3]

(iii) Describe how lossless compression can be used to reduce the file size of a text file.

....

....

....

.... [2]

(iv) Explain why lossy compression should **not** be used on a text file.

....

....

....

.... [2]

(b) A computer can represent numerical data in different forms.

Complete the table by writing the answer to each statement.

Statement	Answer
The hexadecimal value 11 represented in denary	
The smallest denary number that can be represented by an unsigned 8-bit binary integer	
The denary number 87 represented in Binary Coded Decimal (BCD)	
The denary number 240 represented in hexadecimal	
The denary number –20 represented in 8-bit two's complement binary	

[5]

Working space

....

....

....

....

....

....

....

....

....

....

....

....

....

....

12   9608/12/M/J/22/Q1

(a) Draw **one** line from each image representation term to its correct definition.

Term		Definition

Term

Pixel

Bit depth

Image resolution

File header

Definition

The number of pixels wide by the number of pixels high

The smallest identifiable component of an image

Stores data about the image file, e.g. file format, number of bits per pixel, file size

The number of bits used to represent each colour

[3]

(b) The following section of a bitmap image is 10 pixels wide and 5 pixels high. In this example, each colour is represented by a letter, e.g. B is blue.

B	B	B	B	B	B	B	B	B	B
Y	Y	P	Y	Y	Y	P	Y	Y	Y
R	R	M	R	P	K	T	T	R	R
B	O	P	Y	Y	Y	P	G	P	P
R	O	R	P	P	P	R	R	R	R

The complete image can have up to 256 colours.

(i) Identify the smallest number of bits that can be used to represent each colour in the complete bitmap image.

.... [1]

(ii) Calculate an estimate for the file size of the section of the bitmap image shown, giving your answer in bytes. Use your answer from **part (b)(i)**.

Show your working.

Working ....

....

....

Answer .... bytes

[2]

(c) Describe how changing the colour depth of an image affects its file size.

....

....

....

.... [2]

(d) The first row of pixels in the image from **part (b)** is shown:

B	B	B	B	B	B	B	B	B	B

Explain how this row of pixels can be compressed using lossless compression.

....

....

.... [2]

13   9608/11/M/J/22/Q1

Computers store data in binary form.

(a) State the difference between a tebibyte and a terabyte.

....

.... [1]

(b) Convert the signed denary value –100 into an 8-bit two's complement binary integer.

Working ....

....

Answer ....   [1]

(c) Convert the denary number 251 into hexadecimal. Show your working.

Working ....

....

....

....

Answer ....

[2]

(d) Add the following unsigned binary integers.

$$0\ 1\ 0\ 1\ 0\ 0\ 0\ 0$$
$$+\ \underline{0\ 0\ 1\ 1\ 1\ 1\ 1\ 0}$$

[1]

14   9608/13/O/N/21/Q8

(a)   Describe how run-length encoding (RLE) can be used to compress a single video frame.

....

....

....

....

....

....

.... [4]

(b) Identify **two** other methods of compressing a single video frame.

1 ....

....

2 ....

....

[2]

15   9608/13/O/N/21/Q2

Daniel is creating a sound file for a school project.

(a) Daniel records the sound using a sampling rate of 44.1 kHz and a sampling resolution of 16 bits.

   (i) State what is meant by a **sampling rate** of **44.1 kHz**.

     ....

     .... [1]

   (ii) State what is meant by a **sampling resolution** of **16 bits**.

     ....

     .... [1]

(b) Daniel needs to write a report about the sound he is using for his project. He will use a keyboard to write this report.

Describe the basic internal operation of a keyboard.

....

....

....

....

....

....

....

.... [4]

16   9608/13/O/N/21/Q1

  (a) Convert the following two's complement binary integer into denary. Show your working.

<div align="center">

11001011

</div>

Working ....

....

....

Answer ....

.... [2]
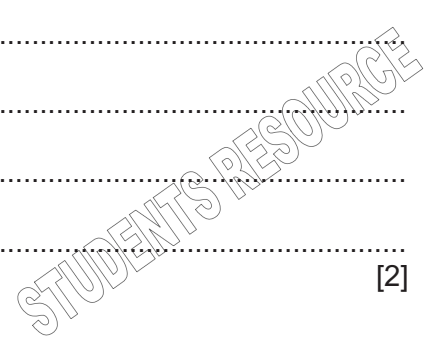
(b) Convert the following unsigned binary integer into hexadecimal.

10101101

.... [1]

(c) Convert the following denary integer to Binary Coded Decimal (BCD).

1753

.... [1]

(d) Give **two** examples of practical applications of BCD.

1 ....

....

2 ....

....
[2]

(e) An encryption routine replaces each character in a short message with a different character.

For example, the following table shows how the routine encrypts the word 'HELLO' by adding **3** to the ASCII denary value of each character.

Original character	H	E	L	L	O
ASCII denary value	72	69	76	76	79
ASCII denary value + 3	75	72	79	79	82
Encrypted character	K	H	O	O	R

The ASCII value of the character A is 65.

Complete the table to show how the routine will encrypt the word 'WANDS'.

Original character	W	A	N	D	S
ASCII denary value					
ASCII denary value + 3					
Encrypted character					

[2]

17   **9608/12/O/N/21/Q10**

An 8-bit binary number can be interpreted in many ways.

(a) State the number of different values that an 8-bit unsigned binary integer can represent.

.... [1]

(b) Give the smallest **and** largest denary values that an 8-bit two's complement integer can represent.

Smallest ....

Largest ....
                                                                        [2]

18   **9608/12/O/N/21/Q2**

A travel company is designing a website.

(a) The bitmap logo for the travel company is shown.

Each colour is represented by a letter, for example, R = red, B = black, W = white.

Bitmap Logo

R	R	R	R	R	R	R	R
R	B	B	B	B	B	W	R
R	B	W	W	W	B	W	R
R	B	W	W	W	W	W	R
R	B	W	W	B	B	W	R
R	B	W	W	W	B	W	R
R	B	B	B	B	B	W	R
R	R	R	R	R	R	R	R

(i) State the minimum number of bits needed to represent each pixel in the bitmap logo.

.... [1]

(ii) Calculate the minimum file size, in bytes, of the bitmap logo. Show your working.

Working ....

....

....

File size ....
                                                                        [3]

(b) The travel company uploads a video to its website. The video is stored as an MP4 file. MP4 is an example of a multimedia container format.

Describe what is meant by a **multimedia container format**.

....

....

.... [2]

(c) Complete the following sentences that describe two terms related to videos.

.... is when a sequence of consecutive pixels

in the same frame have the same value.

.... is when a pixel in the same location in two

consecutive frames has the same value.

[2]

19   9608/11/O/N/21/Q2

Joanne wants to record sound files and videos for uploading to a social media website.

(a) The following table contains terms about sound representation and encoding.

Complete the table by writing the definitions for each term.

Term	Definition
Sampling	....
Sampling resolution	....
Sampling rate	....

[3]

(b) Joanne records a short video using interlaced encoding.

Describe what is meant by **interlaced encoding**.

....

....

.... [2]

20   9608/11/O/N/21/Q1

An image can be either a bitmap image or a vector graphic.

(a) Vector graphics are made up of drawing objects and their properties.

    (i) State what is meant by a **drawing object**.

....

.... [1]

    (ii) Identify **four** properties of a **drawing object**.

1 ....

....

2 ....

....

3 ....

....

4 ....

....
[4]

(b) Identify **three** items that are stored in a **bitmap** file header.

1 ....

....

2 ....

....

3 ....

....
[3]

(c) A bitmap image needs to be compressed before it can be sent by email.

Describe **one** lossy and **one** lossless method of compressing the image.

Lossy ....

....

....

....

Lossless ....

....

....

....

[4]

21   9608/11/M/J/21/Q2

Zak designs a logo for his company. He uses vector graphics software to create the logo.

(a) One of the drawing objects in the logo is a circle.

Identify **four** properties of the circle.

1 ....

2 ....

3 ....

4 ....

[4]

(b) Describe what is meant by a **drawing list** using the logo as an example.

....

....

.... [2]

(c) Zak could have used a bitmapped image for the logo.

Describe **two** drawbacks of using a bitmapped image for the logo instead of a vector graphic.

Drawback 1 ....

....

....

Drawback 2 ....

....

....

[4]

(d) Zak's company holds details about clients in a database.

Give **three** security measures that Zak can implement to make sure that only authorised employees can access the data.
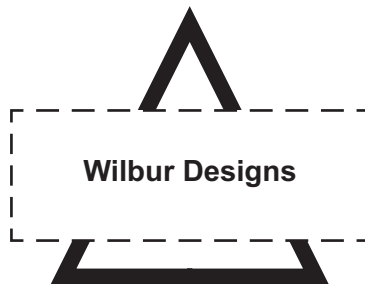
1 ....

2 ....

3 ....

[3]

22   9608/13/O/N/20/Q7

Wilbur uses vector graphics to create a logo for his company.

Wilbur Designs

(a) Describe how the logo is represented and encoded by the computer.

....

....

....

....

.... [4]

(b) Wilbur scans a hand drawn image. The scanned image uses 8 bits to store the colour for each pixel. The image is 2048 pixels wide by 1024 pixels high.

(i) Calculate an estimate of the file size of the scanned image. Give your answer rounded to the nearest MB.

Show your working.

....

....

Answer .... MB

[2]

(ii) Wilbur wants to compress the scanned image before emailing it to his colleague.

Describe **one** lossy compression technique that Wilbur can use to compress this image.

....

.... [3]

23   9608/13/O/N/20/Q2

Four terms about videos are given with six descriptions.

Draw **one** line from each term relating to videos to its correct description.

Term	Description
	The number of images that are displayed per second
Progressive encoding	The number of pixels per unit of measurement e.g. per inch
Frame rate	Each frame is split into two fields: the first field contains only the odd lines, the second field contains the even lines
Interlaced encoding	Only the pixels that have changed are transmitted
	The complete frame is reproduced in each scan of the image
Image resolution	The number of pixels in the image

[4]

24   9608/12/O/N/20/Q2

One method of compressing a file is run-length encoding (RLE).

(a) Describe, using an example, how a **text file** is compressed using RLE.

....

....

....

.... [3]

(b) Explain why run-length encoding will sometimes increase the size of a text file.

....

....

.... [2]

25   9608/12/O/N/20/Q1

Different types of data can be represented in a computer system.

(a) Numeric is one type of data.

    (i) Convert the following denary number into Binary Coded Decimal (BCD).

$$105$$

    .... [1]

    (ii) Convert the following two's complement binary integer into denary.

$$10111111$$

    .... [1]

    (iii) Convert the following hexadecimal number into denary.

$$AB$$

    .... [1]

(b) Character is another type of data.

The following tables show part of the ASCII code character set.

Character	Denary value
A	65
B	66
C	67
D	68
E	69

Character	Denary value
a	97
b	98
c	99
d	100
e	101

    (i) Describe how the computer uses ASCII codes to represent characters.

....

....

.... [2]

  (ii) Convert the following string into ASCII codes.

<p align="center"><code>Bed</code></p>

....

.... [1]

 (iii) Give the denary ASCII code for the following character.

<p align="center"><code>H</code></p>

.... [1]

26   9608/11/O/N/20/Q6

  (a) Convert the following denary number into a 12-bit two's complement binary form.

<p align="center"><code>-245</code></p>

.... [1]

  (b) Convert the following hexadecimal number into denary.

<p align="center"><code>F0</code></p>

....

.... [1]

  (c) Convert the following unsigned binary integer into denary.

<p align="center"><code>10101111</code></p>

....

.... [1]

  (d) Convert the following Binary Coded Decimal (BCD) into denary.

<p align="center"><code>100001010011</code></p>

....

.... [1]

27   9608/11/O/N/20/Q5

Oscar is watching a concert on his laptop computer.

(a)   The concert is streamed to his computer at the same time as it is taking place.

(i)   Identify whether Oscar is using real-time or on-demand bit streaming. Justify your choice.

Streaming method ....

Justification ....

....

....

....
[3]

(ii)   The video of the concert repeatedly stops and restarts while Oscar is watching it on his laptop computer. His friend is watching the same video of the concert at the same time, in a different location, but he does not experience the same problem as Oscar.

Give **three** possible reasons why Oscar's video constantly stops and starts again.

1 ....

....

2 ....

....

3 ....

....
[3]

(b)   The video of the concert is made up of a sound track and multiple images.

Two successive frames of one section of the video are shown. The pixel colours are represented by letters.

BL	BL	BL	RD	RD	RD
K	K	K	K	K	K
LG	LG	LG	DG	DG	DG
Y	Y	K	Y	Y	K
W	K	W	W	W	DG
P	P	P	P	P	P

Frame 1

BL	BL	BL	RD	RD	RD
BL	BL	BL	RD	RD	RD
LG	LG	LG	DG	DG	DG
BK	BK	BK	BK	BK	BK
W	K	W	W	W	DG
P	P	P	P	P	P

Frame 2

(i) Explain the way in which progressive encoding can be used to transmit Frames 1 and 2.

....

....

....

.... [2]

(ii) Explain, using Frames 1 and 2 as an example, the way in which temporal redundancy can be used to compress a video.

....

....

....

....

....

.... [3]

(iii) Give another type of redundancy technique that can be used to compress a video.

....

.... [1]

(iv) MP4, WMV and AVI are all examples of a type of format that combines sound and image components into a video.

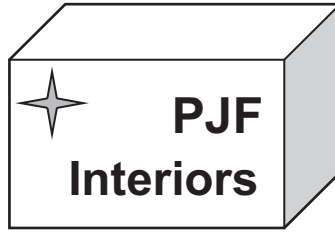Identify the type of format that combines the sound and image components into a video.

....

.... [1]

28   9608/13/M/J/20/Q7

Xiaoming created the following logo using bitmapped graphics software.

(a) Describe how **one** typical feature of bitmapped graphics software was used to create the logo.

....

....

....

.... [2]

(b) The finished logo is 160 pixels wide and 160 pixels high. The image has a colour depth of 3 bytes per pixel.

Calculate an estimate of the file size for the logo. Give your answer in kilobytes. Show your working.

Working ....

....

....

Answer .... KB

[3]

(c) Xiaoming needs to use his logo on his business card, on his website and on large display boards. He is told that he should have created a vector graphic logo instead of a bitmapped graphic logo.

Describe **one** benefit of creating a vector graphic logo instead of a bitmapped graphic logo.

....

....

....

.... [2]

(d) The hexadecimal colour value of the background of Xiaoming's website is:

913C8E

Complete the following table by converting each hexadecimal value to denary value.

	Red	Green	Blue
Hexadecimal value	91	3C	8E
Denary value			

[2]

(e) Part of Xiaoming's website contains the JavaScript function `performTask()`.

```
function performTask(){
    var value1;
    value1 = document.getElementById("FirstBox").value;

    if (value1 == "Yes"){
        document.getElementById("paragraph1").innerHTML = "Agreed";
    } else if(value1 == "No"){
        document.getElementById("paragraph1").innerHTML = "Sorry";
    } else {
        alert("Error")
    }
}
```

Describe the purpose of the following JavaScript statements from the function `performTask()`.

(i) `alert("Error")`

....

.... [1]

(ii) `value1 = document.getElementById("FirstBox").value;`

....

....

.... [2]

(iii) `document.getElementById("paragraph1").innerHTML = "Agreed";`

....

....

.... [2]
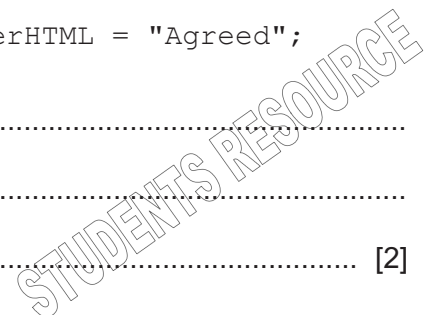
29   9608/12/M/J/20/Q2

Amir has created a sound file using his desktop computer.

(a) Complete the table by writing the missing definitions and term about sound.

Term	Definition
Sampling	....
....	The number of samples per unit time
Sampling resolution	....

[3]

(b) The file is too large to be emailed and the file size needs to be reduced.

(i) Name **one** lossless compression technique that can be used to reduce the size of the sound file.

....

.... [1]

(ii) Describe **one** lossy compression technique that can be used to reduce the size of the sound file.

....

....

....

.... [2]

(c) Amir's computer has system software, including utility software and an operating system.

(i) Explain how the disk formatter, disk contents analysis and disk repair utilities work together.

....

....

....

.... [3]

(ii) Amir's computer has several peripheral devices connected to it.

State **three peripheral** management tasks performed by the operating system.

Task 1 ....

....

Task 2 ....

....

Task 3 ....

....
[3]

(iii) The peripheral devices are plugged into USB ports of the computer.

Describe **two** benefits of connecting the peripheral devices using a USB port.

1 ....

....

....

2 ....

....

....

....
[4]

30   9608/12/M/J/20/Q1

Samira is creating an interactive, multimedia presentation for the entrance to her hotel.

(a) The presentation will be on a device that has a resistive touchscreen for user input.

Complete the following paragraph about the basic operation of a resistive touchscreen.

The resistive touchscreen has two layers with .... between

the layers. When a finger touches the screen, the .... moves

to touch the .... ; this creates a point of contact.

The .... and .... position of this

point is calculated.

[4]

(b) Samira uses a computer to draw a logo for her hotel and saves it as a vector graphic. The logo will be placed on the multimedia presentation and elsewhere, such as on signs at the entrance of the hotel.
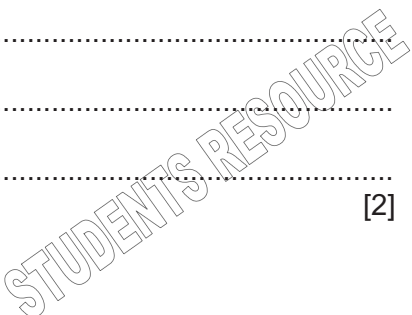
Samira emails the logo to a company that prints signs, and other documentation for the hotel.

(i) Describe how the logo is represented by the computer.

....

....

....

....

....

....

....

.... [3]

(ii) State **two** reasons why the hotel **logo** is saved as a vector graphic instead of a bitmapped graphic.

1 ....

....

2 ....

....

[2]

31   9608/11/M/J/20/Q4

A digital camera takes a bitmap image. The image is 2000 pixels wide by 1000 pixels high with a colour depth of 24-bits.

(a) Calculate an estimate of the file size for the image. Give your answer in megabytes. Show your working.

Working ....

....

....

Answer .... MB

[3]

(b) A second image is taken, this time in black and white. It has the same number of pixels, but the file size is smaller.

Explain why the file size is smaller.

....

.... [2]

(c) The digital camera allows a user to add text to an image. The text is encoded as ASCII values.

The table shows the ASCII denary values for five characters.

Character	ASCII denary value
a	97
b	98
c	99
d	100
e	101

(i) Give the 8-bit binary value for the ASCII character 'b'.

....

.... [1]

(ii) Complete the table by writing the ASCII denary value for the character 't' **and** its hexadecimal equivalent.

Character	t
ASCII denary value	
Hexadecimal value	

[2]