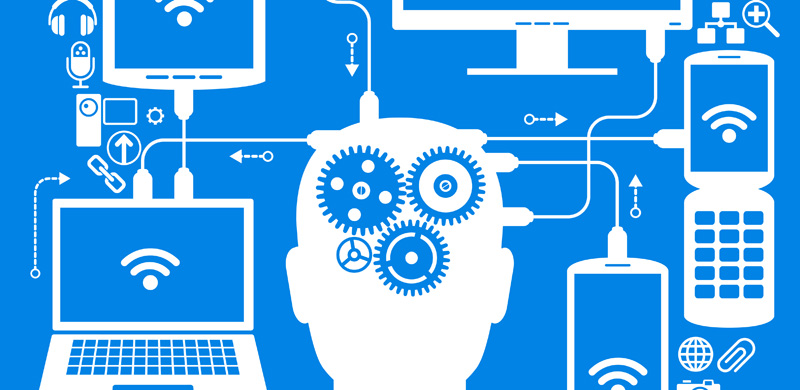
# ICT workbook for January exam 2015



**Name……………………………………………………..**

# 

# Revision list by LO on spec:

|  |  |  |  |
| --- | --- | --- | --- |
| **LO1** | **LO2** | **LO3** | **LO4** |
| * Laptop hardware devices * Digital camera hardware devices * Storage devices * Connecting devices/data transfer * Feedback form for customers – QoS * ‘hard copy’ – printing; web & email other options * Desktop vs tablet – choice of system * Image manipulation software – edit & delete photos | * Web forms * Backup * Encryption * Databases * Client/server concept; upload & download * Reference numbers * File formats – raw/proprietary vs open | * Diary management software * Email tools | * Cookies & web advertising * Risks of data transfer over internet * Reducing dangers of internet data transfer |

**Input, output, storage & data transfer devices**

*Sort the devices into the correct categories in the table:*

*Mouse Microphone Scanner USB memory stick*

*Radio Frequency Identification Device (RFID) Printer DVD Disc Camera Joystick Keyboard Magnetic Strip*

*Barcode scanner Speakers SD Card NFC (Near field communication) Online Survey External HDD Touchscreen Monitor Projector*

*Magnetic Ink Character Recognition (MICR) Plotter Blu-ray Disc Camcorder Bar Code*

|  |  |  |  |
| --- | --- | --- | --- |
| Input | Output | Storage | Transfer devices |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
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|  |  |  |  |

List three different ways to send your friend an image file:

1)…………………………………………………………………………………………………………………………

2)…………………………………………………………………………………………………………………………

3)…………………………………………………………………………………………………………………………

Photographers at Image Reflections would like to store a large amount of images, almost 400GB of data. What storage medium would you suggest and why?

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Complete the table below: (think of Advantages and Disadvantages)

|  |  |  |
| --- | --- | --- |
| Transfer type | Wired / Wireless | Typical usage |
| USB 2.0 |  | Updating your iPod music library |
| USB 3.0 |  |  |
| Thunderbolt |  |  |
| 3G |  |  |
| 4G |  |  |
| Cloud |  |  |
| P2P |  |  |

Data transfers can be sped up using ‘Optimisation’ for Image Reflections. Answer the following questions on this topic:

a) What is data optimisation?

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…………………………………………………………………………………….……………………………………

b) What is meant by compression?

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Identify three factors that affect data transfer on Image Reflection computer network:

1) ……………………………………………………………………………………………………………………………

2) ……………………………………………………………………………………………………………………………

3) ……………………………………………………………………………………………………………………………

Give two advantages of having a fibre-optic internet connection at Image Reflection compared to a traditional copper connection:

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At the end of the day the photographer’s images can be uploaded to the network.

1. Identify one way they can physically connect to the computer network.

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1. A camera has a removable storage. What type of storage medium would be suitable to use in a camera.

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**Cookies**

How can the Image Reflections use cookies in their website?

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How do cookies work?

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What legislation/laws does the Image Reflections have to comply with?

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**Copyright**

Name and explain two types of legislation that protects images samples created by photographers or graphic designers.

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Explain how Image Reflections can use other authors’ images in their creations.

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List 4 principles from the Data Protection Act

1. ……………………………………………………………………………………………………………………..…………….
2. ……………………………………………………………………………………………………………………..……………..
3. ……………………………………………………………………………………………………………………..……………..
4. ……………………………………………………………………………………………………………………..……………..

How can Image Reflections ensure that they are not breaking the law when they collect and store data from its customers?

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Describe one legal complication for Image Reflections if the data is stolen?

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Why is it important for Image Reflections to keep backups off-site, away from the original network location?

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What are some of the physical security methods Image Reflections can use to protect their data?

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Why should the photographers change their passwords regularly?

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How can using firewalls help keep the data safe and secure at Image Reflections?

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**Data capture methods**

Complete the table below:

|  |  |
| --- | --- |
| Data capture method | Explanation with examples |
| Online and paper based forms |  |
| Barcode readers |  |
| RFID |  |
| NFC |  |

Answer the following questions:

a) Explain the purpose of RFID:

…………………………………………………………………………………………………………………..…………………..

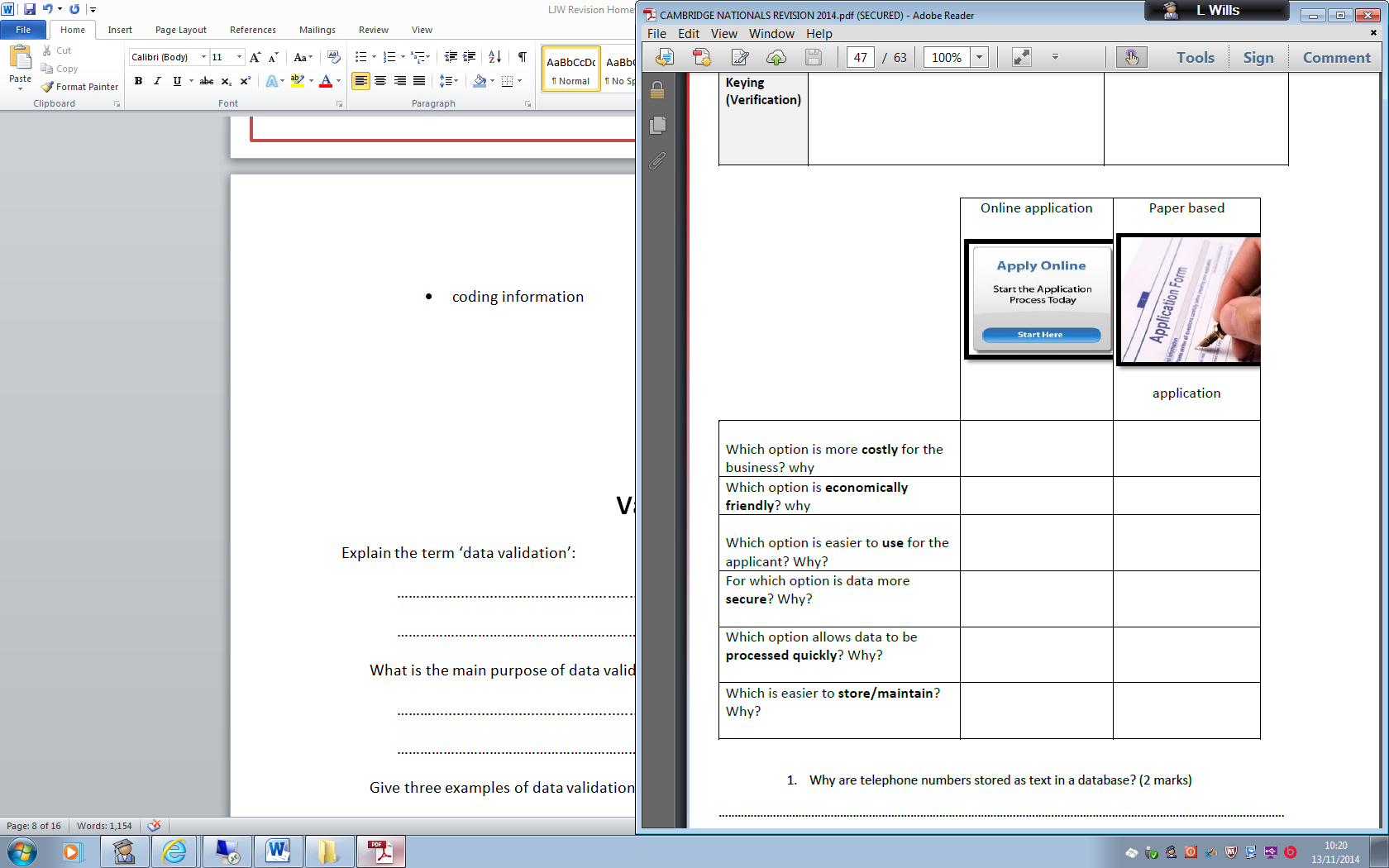
……………………………………………………………………………………………………………………..………………..

b) Give two advantages for Image Reflections using RFID tags instead of barcodes on postal packaging:

1)……………………………………………………………………………………………………………………..…………...

2)……………………………………………………………………………………………………………………..…………...

**Online feedback forms**



In the table can you think of fields which can potentially be used by the Image Reflections to gather feedback on their website?

|  |  |
| --- | --- |
| Field Name | Why needed |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

In the space below design a form for the Image Reflections, using the above fields – annotate.

* + coding information

Image Reflections feedback form, on their website, which people can fill in and submit.

Complete the table below to describe the purpose of each user form feature. The first line has been completed for you.

|  |  |
| --- | --- |
| User form feature | Describe one purpose of this feature |
| Button | A user can click on this to submit the information that has been added. |
| Radio Button |  |
| Text Field |  |
| Drop down menu |  |

**Database**

What type of application software would be most suitable to use to store and sort the images?

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Why do Image Reflections customers have a unique username in the Database?

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Describe three features of database software that makes it suitable for sorting and analyzing Image Reflections customer information.

Feature 1 ………………………………………………………………………………………………..…………………………………..

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Feature 2 ……………………………………………………………………………………………..……………………………………..

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Feature 3 …………………………………………………………………………………………………………..………………………..

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Why should each photo taken have a reference number?

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**Validation methods**

The company wants to use customer feedback to assess the performance of the employees. This will be collected via a webpage after the photographer completes each job and will then be transferred into a database for analysis.

What is the main purpose of data validation?

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Give three examples of data validation rules Image Reflections could use in their database:

1)……………………………………………………………………………………………………………………..…………

2)……………………………………………………………………………………………………………………..…………

3)………………………………………………………………………………………………………………………..………

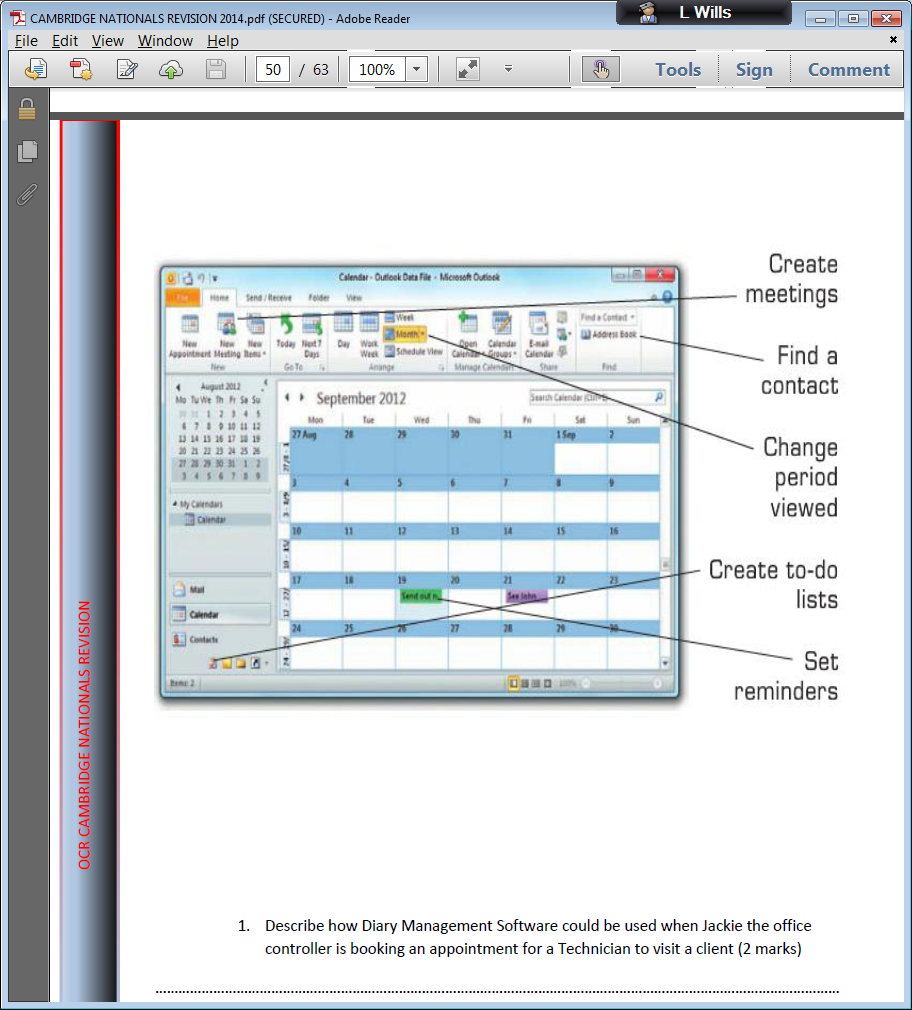
Give three advantages of using data validation:

1)………………………………………………………………………………………………………………..……………

2)……………………………………………………………………………………………………………………………..

3)………………………………………………………………………………………………………………………………..

**Features of Diary Management Software & email**



Explain how diary management software could help Image Reflections when creating weekly scheduled appointments for the photographers?

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Identify 3 tasks that can be completed using diary management software?

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Describe 2 advantages for photographers using Diary Management Software?

……………………………………………………………………………………………………………………..………………..

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**Email**

True or false—It’s OK to use ‘txt’ speak when sending emails to prospective employers (circle correct answer):

True / False

Which would be the best way to start an email to your boss?:

A) “HIYA!!”

B) “Alright?”

C) “wasup?”

D) “Dear”….

Why do you think email etiquette is important for Image Reflections?

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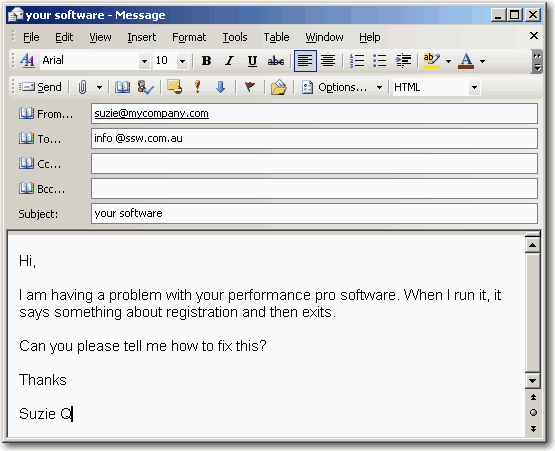
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Do you think Image Reflections customers’ form an opinion on you based on how you write an email? If so why?

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Read the email above and write down what is wrong with it:

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**File formats**

1. Sort the following file formats into the correct categories:

OPEN FORMATS

PROPRIETARY

FORMATS

PROPRIETARY

FORMATS

PROPRIETARY

FORMATS

What is an ‘open’ file format?

………………………………………………………………………………………………………………..………………………..

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What is a ‘proprietary’ file format?

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What type of software would be needed to view webpages?

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What software could photographers at Image Reflections use to manipulate or edit images?

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Give an example of ‘open’ format image file that Image Reflections could use to email photos to customers

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Name two ‘devices’ that Image Reflections can use to transport image files

1. ……………………………………………………………………………………………..…………………………………………..
2. …………………………………………………………………………………………..……………………………………………..

Electronic methods of transferring photographs, the risks of using these methods and possible actions that may be taken to reduce these risks

Downloading images onto tablets, do you think photographers should use a wired or wireless network?

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What are the advantages of wired connections?

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What are the disadvantages of wired connections?

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What are the advantages of wireless connections?

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What are the disadvantages of wireless connections?

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What is a network key? Why should Image Reflections networks have them?

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**Data loss, corruption and theft**

What are the four implications of data loss?

1)…………………………………………………………………………………….……………………………………….

2)………………………………………………………………………………………………………………………….….

3)………………………………………………………………………………………………………………………….….

4)………………………………………………………………………………………………………………………….….

Explain two of the implications Image Reflections could have if data (customer’s details) are stolen.

1)…………………………………………………………………………………………………………………………………

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2)…………………………………………………………………………………………………………………………………

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Give two impacts on Image Reflections if they suffered from data corruption:

1)………………………………………………………………………………………………………………………………..

2)………………………………………………………………………………………………………………………………..



The article above relates to the Sony PSN hack of 2011.

What was the main threat Sony faced?

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What should Sony do to ensure this does not happen again?

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What is a DDOS attack?:

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………………………………………………………………………………………………………………………….……………

What is ‘ID theft’?

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What is Encryption used for?

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What is a SSID?

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Give two advantages of using login and password on a network.

Advantage 1 ………………………………………………………………………………………………….…………………………………………..

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Advantage 2…………………………………………………………………………………………………….………………………………………..

……………………………………………………………………………………………………………………….………………………………………….

Give an example of a password………………………………………………………………………………………………………………….

Explain why…………………………………………………………………………………………………….………………………………………….

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**Use of protection software i.e. firewall, anti-virus, anti-spam**

Answer the following questions:

What does anti virus mean?:……………………………………………………………………………….…………………………………………………….

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Give two functions of anti virus software:

1)……………………………………………………………………………………………………….………………………………………………

2)……………………………………………………………………………………………………….………………………………………………

Give two advantages of using firewall software:

1)………………………………………………………………………………………………………………………….………………………………………..

2)……………………………………………………………………………………………………………………….……………………………………………

Give two differences between firewall and antivirus software:

1)………………………………………………………………………………………………………………………….…………………………………………

2)……………………………………………………………………………………………………………………………….……………………………………

Discuss why Image Reflections, may wish to monitor the use of smartphones issued to employees.

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What two technologies could Image Reflections use to monitor their staff?

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A customer has forwarded an email to Image Reflections. The customer suspects that the email is not from them and would like advice on what action to take.

*Subject: Image Reflections Prize winner!*

*Hello!*

*Image Reflections has awarded 2u a special prize for being an outstanding customer!*

*Your prize is 650 million United States Dollars (USD).*

*Please attention! To collect your prize you must give us your bank details. Please download and open the attached form to add your bank details. Then send it to elpprize@czgt.com.*

Identify four reasons why this email is suspicious.

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**Health and Safety**

All photographers at Image Reflections have complained that they suffer from neck pain when using the laptop in the office.

State **one** way that the photographers could reduce the risk of suffering from neck pain when using a laptop computer.

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The photographers think that the Health and safety at work Act may apply to this situation.

Sam a photographer tripped over some cables. What should Image Reflection do?

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**Assistant Technologies**

Image Reflections have employed a new photographer Pete. He has hearing disabilities.

What **Hardware** assistant technologies could Image Reflections supply Pete to support his disability.

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What **Software** assistant technologies could Image Reflections supply Pete to support his disability.

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