

Data transmission – 2020 O Level 2210

1. June/2020//Paper_11/No.3

Carla’s computer has a USB port.

Carla uses the USB port to connect her mobile device to her computer, to transfer her photos.

(a) Give **three** benefits of using a USB port to connect the mobile device to the computer.

Benefit 1

.....

Benefit 2

.....

Benefit 3

.....

[3]

(b) State the type of data transmission used when transferring data using a USB port.

..... [1]

(c) Carla wants to reduce the file size of the photos she has transferred to her computer. She does not want the quality of the photos to be reduced, so she uses lossless compression.

Describe how lossless compression reduces the file size of the photos.

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..... [4]

2. June/2020//Paper_11/No.4

Two error detection methods that Allison's computer uses are check digit and checksum.

(a) Give **two** similarities between the check digit and checksum methods.

1

.....

2

.....

[2]

(b) Identify **one other** error detection method that Allison's computer could use.

Describe how the method checks for errors.

Method

Description

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.....

[4]

3. June/2020//Paper_12/No.3

A company collects and stores data about its customers. The data is stored on a server in the company's office.

The data is transmitted to cloud storage to create a back-up.

The data is encrypted using symmetric encryption before it is sent to the cloud storage.

(a) Describe how the data is encrypted.

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..... [4]

(b) Give **three other** methods that can be used to secure the data in the office.

Method 1
.....
Method 2
.....
Method 3
..... [3]

4. June/2020//Paper_12/No.8

Leonard has a new laser printer to print letters for his business.

Leonard connects his printer to his computer using the USB port.

(a) Give **three** benefits of using the USB port to connect the printer to the computer.

Benefit 1

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Benefit 2

.....

Benefit 3

.....

[3]

(b) State **two** benefits and **one** drawback of Leonard using a laser printer, instead of an inkjet printer, to print the letters.

Benefit 1

.....

Benefit 2

.....

Drawback

.....

[3]

(c) An interrupt signal is sent from the printer to the computer.

(i) Give **two** examples of when a printer would generate an interrupt signal.

Example 1

Example 2

[2]

(ii) Many devices send interrupt signals.

Identify the software in the computer that will receive and manage all interrupt signals.

..... [1]

6. Nov/2020//Paper_12/No.3a

Alessandro has some important data stored on his computer.

He is concerned about accidental damage to his data.

(a) (i) Identify **three** ways that the data could be accidentally damaged.

1

2

3

[3]

(ii) State what Alessandro could do to make sure that he can retrieve his data if it is accidentally damaged.

..... [1]