7 A computer has both a media access control (MAC) address and an internet protocol (IP) address.

(a) Tick (✓) **one** box to show which of the statements is correct about the MAC address.

A It is assigned by the manufacturer. ☐

B It is assigned by a router. ☐

C It can be static or dynamic. ☐

D It is made up of three different parts. ☐

[1]

(b) An IP address can have an IPv4 or IPv6 format.

(i) Give an example of an IP address that has an IPv4 format.

..... [1]

(ii) Give **two** characteristics of the IPv6 format.

1 .....

.....

2 .....

.....

[2]

1 Malware can be used to corrupt data stored on a computer.

(a) Tick (✓) **one** box to show which cyber security threat is **not** a type of malware.

A Phishing ☐

B Ransomware ☐

C Virus ☐

D Worm ☐

[1]

(b) Identify **one** other example of malware than those given in **part 1(a)**.

..... [1]

(c) Identify the type of software that is used to find and remove malware from a computer.

..... [1]

12 Digital currency can be used to pay for products and services.

Digital currencies are often tracked using digital ledgers.

(a) Give **two** other features of digital currency.

1 .....

.....

2 .....

.....

[2]

(b) Identify the process that uses a digital ledger to track the use of digital currency.

..... [1]

8 Draw and annotate a diagram to show how a payment transaction is made using digital currency and blockchain.

[4]

5 Complete the description of digital currencies using the terms provided.

blockchains changed datachains decentralised

deleted encryption passport physical address

physically records time-stamp traced

transaction-chains virtually

A digital currency does **not** exist ....., it can only be accessed electronically.

Some digital currencies have digital ledgers called ..... These are decentralised databases where each transaction is stored as a new set of data with a ..... and is linked to the previous set of data. This means that transactions cannot be altered, only new transactions added, which allows the location of the data to be .....

[4]

6 Draw and annotate a diagram to demonstrate how a firewall works.

[4]