# Homework 6 Secondary storage devices

# A list of storage devices is given below.

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| --- | --- | --- | --- |
| **CD-ROM** | **DVD** | **Hard Disk** | **USB Flash Memory stick** |

a) Using the table below, state the typical capacity of each of the above devices. [4]

|  |  |
| --- | --- |
| **Typical capacity** | **Storage medium** |
| 512 Megabytes – 128 Gigabytes |  |
| 512 Gigabytes – 4 Terabytes |  |
| 600 Megabytes – 700 Megabytes |  |
| 2.8 Gigabytes – 4.7 Gigabytes |  |

b) Describe how data is written to and read from an optical disk. [3]

c) Explain how a DVD and a CD-ROM differ in storage capacity despite being the same physical size. [2]

d) Why might an individual prefer to keep an archive of their files on a local storage medium rather than using online cloud storage? [2]

# Hard drive technology has meant that more data has been able to fit onto the same sized physical disk.

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a) Describe the principles of operation of a hard disk drive. [4]

b) Suggest two disadvantages of using a hard disk for data storage over optical disks or flash media. [2]

c) State one technological change that has allowed hard disk capacity to increase without increasing the physical size of the disk. [1]

[Total 18 Marks]