Name: Class:

Task 1

1. Look at the storage devices in the table below. For each one, tick whether it is magnetic, optical or solid state.

|  |  |  |  |
| --- | --- | --- | --- |
| **Storage device** | **Magnetic** | **Optical** | **Solid state** |
| Hard disk drive |  |  |  |
| Blu-ray |  |  |  |
| CD ROM |  |  |  |
| USB flash drive |  |  |  |
| DVD RAM |  |  |  |
| SSD hard drive |  |  |  |
| SD card |  |  |  |
| Floppy disk drive |  |  |  |
| Backup tape drive |  |  |  |

2. There are three different methods that are used to store data.

(a) Name the **three** different methods.

Method 1:

Method 2:

Method 3:

Task 2

(a) Research devices on the internet to complete the first three columns of the following table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Capacity** | **Speed** | **Cost** | **Cost per GB** |
| HDD |  |  |  |  |
| SSD |  |  |  |  |
| Blu-ray |  |  |  |  |
| SD card |  |  |  |  |

(b) Calculate the cost per Gigabyte of each of the devices that you found and complete the fourth column of the table.

(c) Compare your answers with a partner.

Why might there be differences in the cost per GB for the same type of device?

**Task 3**

For each of the devices in the table below, explain factors that will affect their durability and portability.

The first row has been completed for you.

|  |  |  |
| --- | --- | --- |
|  | **Durability** | **Portability** |
| HDD (magnetic) | Fairly durable  When stationary tends to be durable – but if moved, the head can ‘crash’ on the disk damaging parts of it  Must remain sealed to prevent dust damage  Many moving parts that can break | Most hard disks are relatively large, but smaller 2.5” drives can fit in a pocket for transferring data or backups |
| SSD |  |  |
| Blu-ray |  |  |
| SD card |  |  |

Task 4

Calculate the data capacity required for the following scenarios. State the most suitable type of storage based on the data requirements. Justify your choice.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Capacity required | Storage type required | Justification |
| 20 photographs  at 20MB each |  |  |  |
| 200 MP4 files  at 3GB each |  |  |  |
| Three word processed documents at  1MB each |  |  |  |