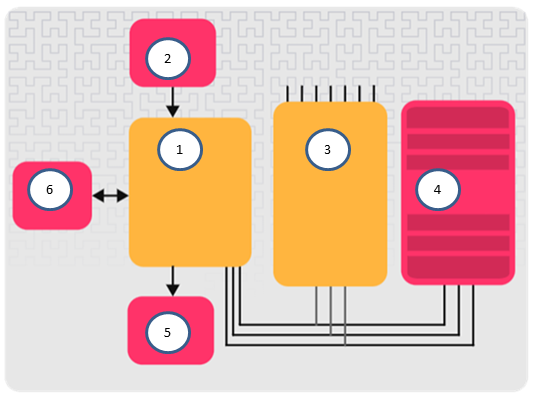
**System Architecture**

**Handout 1 – Von Neumann Architecture**

**Task 1**

Using the diagram below, complete the table to identify the different sections of the **von Neumann architecture**.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2**  Input devices | **3**  Processor | **4**  Main memory | **6**  Secondary storage | **1**  Input/ Output controllers | **5**  Output devices |



|  |  |
| --- | --- |
| **1** | **Input / Output controllers** |
| **2** | **Input devices** |
| **3** | **Processor** |
| **4** | **Main Memory** |
| **5** | **Output devices** |
| **6** | **Secondary storage** |

**Fill in the gaps.**

|  |  |  |
| --- | --- | --- |
| main memory | program instructions | data |

The Von Neumann architecture used the idea of storing **program instructions** and **data**  in **main memory** and moving them between memory and the processor.

**Registers**

|  |  |
| --- | --- |
| **Acronym** | **Meaning** |
| MAR | **Memory Address register** |
| MDR | **Memory Data Register** |
| ACC | **Accumulator** |
| PC | **Program Counter** |

**Task 2**

Identify the correct description to match the **bus.**

|  |  |  |
| --- | --- | --- |
|  |  | transfers content to/from locations |
|  |  | synchronise and control operations |
|  |  | identifies address location |