**Quiz 8 Marking Scheme**

**Hardware**

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| **Question** | **Description** | **Marks** |
| **1** | The Network Interface Card (NIC) allows devices to connect to Sarah's home network by facilitating communication with her router. Each device's NIC has a unique MAC address, which the router uses to send data packets to the correct device. This enables devices like laptops, smartphones, and smart TVs to access the internet through Sarah's network. | **3** |
| **2** | Universally Administered Addresses (UAA) are MAC addresses assigned by the manufacturer of a network device and are globally unique. For example, a UAA could be 00:1A:2B:3C:4D:5E. Locally Administered Addresses (LAA) are MAC addresses that users can manually assign to a device. They are not guaranteed to be globally unique. An example of an LAA could be 02:1A:2B:3C:4D:5E. | **3** |
| **3** | A MAC address, or Media Access Control address, is a unique identifier assigned to a network interface card (NIC) in a device. It is used to identify the device on a network and ensure that data packets are delivered to the correct destination. MAC addresses are composed of hexadecimal digits and are typically represented in a format like 00:1A:2B:3C:4D:5E | **4** |