Task 1

Identify the tasks performed by each piece of network hardware shown in the table below.

* Green indicates these are part of the specification and it’s a requirement to know how these work.
* Orange indicates that although these are not part of the specification, it’s worth knowing so you gain a wider understanding of the topic.
* Yellow indicates this is more of an extension activity.

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| **Rank** | **Network hardware** | **Purpose** |
|  | Switch |  |
|  | Router |  |
|  | Bridge |  |
|  | Gateway |  |
|  | Transmission media |  |
|  | Hub |  |
|  | Server |  |
|  | Wireless Access Point |  |
|  | NIC (Network Interface Controller) |  |

Task 2

Grand Plaza is a new multi-billion pound shopping complex due to open in the local area. It includes: a large number of retail stores spanning across different sectors such as clothing/fashion, food and drink, banking, charities etc.

As part of the shopping complex, there are also additional places to visit. These include places of entertainment, such as a cinema, bowling alley, ice-rink etc.

Therefore, Grand Plaza would like to install a range of information points around the complex. These information points use touch-screen technology that allows customers to find out what shops are in the complex and how to find them.

The management would like to set up their network infrastructure so that:

* All stores have access the network and are able to store data in a centralised location which is then backed up each night.
* Hotspots are placed around the complex to allow shoppers to have access to free Wi-Fi.

**Identify the network hardware required by the shopping centre and justify your choice.**

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