Homework 4: Input devices

1. Barcode readers or scanners are widely used throughout the world.

(a) Give **two** uses of barcodes other than on supermarket products. [2]

# (b) For each of the situations below, state the most suitable input device. You may only use each device once.

|  |  |  |
| --- | --- | --- |
| **Digital camera** | **Barcode scanner** | **RFID enabled device** |

# (i) Anti-theft detection and identification of small, high-value items [1]

# (ii) Identification and recognition of vehicle number plates at a toll crossing [1]

# (iii) Validating tickets for admission to an event [1]

2. A taxi company is considering issuing all its drivers with business cards which would include a QR code displayed on the back of it.

(a) What might the taxi company do with the QR code? [1]

(b) How would the recipient of a business card use the QR code? [2]

(c) Give **one** advantage of the use of QR codes to the company owner. [1]

3. Give three DIFFERENT applications that use keyboards or keypads.

In each case, explain why the keyboard or keypad is used. [6]

4. Name a suitable sensor which could be used in each of the following applications:

(a) Opening and closing of automatic doors at a hotel as a guest approaches

(b) Monitoring the air pollution at the perimeter of an airport

(c) Checking whether clothes are dry in an automatic drier

(d) Detect a person entering a room and automatically turn on the lights

(e) Weigh fruit at the check-point in a supermarket

|  |  |
| --- | --- |
| **Application** | **Suitable sensor** |
| **a** |  |
| **b** |  |
| **c** |  |
| **d** |  |
| **e** |  |

[5]

[Total 20 Marks]