MODULE J HARDWARE AND EMERGING TECH · J1

Input and output devices

Original practice questions · 21 marks · ~25 minutes · Cambridge 0478 syllabus 3.2.1, 3.2.2

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **21 marks**.

1

Total: 4 marks

(a) Explain what is meant by an **input** device and why a computer system requires one. **[2]**

(b) Explain what is meant by an **output** device and why a computer system requires one. **[2]**

2

Total: 5 marks

(a) Tick (✓) **one** box in each row to show whether each device is an input device or an output device. **[5]**

Device	Input device	Output device
Three-dimensional (3D) scanner		
Actuator		
QR code scanner		
Digital light processing (DLP) projector		
Microphone		

3 **Total: 5 marks**

A visitor centre at a mountain nature reserve has an outdoor information point with a touch screen. Visitors touch the screen to see maps and walking routes.

(a) Complete the table by writing the type of touch screen (**resistive**, **capacitive** or **infra-red**) that each description matches. **[3]**

Description	Type of touch screen
Invisible beams of light cross the screen; a touch is found where the beams are broken	
Pressing the screen pushes the top layer onto the layer below, so the two layers touch	
A finger touching the screen changes the electrical charge at that point	

(b) In winter, many visitors use the information point while wearing thick gloves. **[2]**
Identify the type of touch screen from part (a) that would **not** be suitable for these visitors.
Explain your answer.

Type of touch screen

Explanation

4 **Total: 3 marks**

A small bicycle repair workshop needs to print three different things.

(a) Complete the table by identifying the most suitable type of printer for each task. Choose from: **inkjet printer**, **laser printer**, **3D printer**. Each type is used once. **[3]**

Task	Most suitable printer
Printing 400 copies of a text-only price leaflet, quickly, every week	
Printing one high-quality colour photograph of a restored bicycle for the shop window	
Making a small plastic clip to replace a broken part that is no longer sold	

5 **Total: 4 marks**

A garden centre is setting up a self-service plant help point. Every plant label has a QR code. A customer uses the help point to get the care instructions for the plant they are holding.

(a) Identify **one** input device and **one** output device that the help point could use. For each device, explain why it is required in this system. **[4]**

Input device

Why it is required

Output device

Why it is required

Total for this worksheet: 21 marks