

Design & Technology

AQA GCSE

Systems approach to designing

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. Which component is the output in a temperature warning system?

- A** Lamp
- B** Switch
- C** Temperature sensor

Q2. What is the electrical component shown used for?



- A** To detect pressure levels
- B** To switch equipment on or off
- C** To switch the direction of a motor

Q3. . Which component is the input in a temperature warning system?

- A** Lamp
- B** Switch
- C** Temperature sensor

Q4. Which of the following is **not** an input for a system?

- A** Light sensors
- B** Pressure sensors
- C** Timers

Q5. Complete the system for an intruder alarm system **(3 marks)**

Input block: _____

Process block: _____

Output block: _____

Answers

Q1. A

Q2. B

Q3. C

Q4. C

Q5.

Inputs:

- Light sensors
- Temperature sensors
- Pressure sensors
- Switches
- Pressure pad

Processes:

- Microcontrollers
- Timers
- Decision making

Outputs:

- Buzzers
- Speakers
- Lamps