**Design & Technology**

**AQA GCSE** Logo

Description automatically generated with low confidence

**The use of production aids**

**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.** What is the purpose of a reference point in manufacturing?

**A** To add decorative details to a product

**B** To ensure accurate alignment and measurement during production

**C** To change the colour of the material

**Q2.** Which of these is an advantage of using a template?

**A** Ensures consistency and accuracy when marking/shaping materials

**B** Makes materials more flexible

**C** Increases the cost of production significantly

**Q3.** What is a jig commonly used for?

**A** Painting surfaces evenly

**B** Holding a workpiece in place and guiding tools for repetitive tasks

**C** Measuring electrical resistance

**Q4.** Which tool would be best for marking out multiple identical wooden parts quickly?

**A** A jig

**B** A pattern

**C** A template

**Q5.** Explain the purpose of a template **(2 marks)**

**Q6.** State two ways a jig can improve accuracy during production **(4 marks)**

**Answers**

**Q1**. B

**Q2**. A

**Q3**. B

**Q4**. C

**Q5.**

* Templates are used to save time when marking out.
* You can draw round a template to produce multiple copies of a part or design.
* They are used to allow repetition and improve accuracy between identical parts.
* They are reusable so you do not have to redraw identical parts fresh each time

**Q6.**

* A jig improves accuracy by removing the need for measuring and marking out to take place each time a cut is made or a hole drilled. This removes the potential for human error throughout the marking out process.
* A jig can improve the accuracy of manufacturing a particular joint, by securely holding the workpiece while also guiding the cutting tool, eg when cutting a mitre joint in timber or when drilling a hole.
* A jig can be used to ensure consistency when manufacturing a product, eg guiding a router around a particular profile ensuring consistency and accuracy where two kitchen worksurfaces may join.