

OCR A-Level

Understanding Product Standards: BSI & ISO (8.1d)

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. The British Standards Institute (BSI) is responsible for:

- A** Designing consumer products for the UK market
- B** Publishing technical standards to ensure quality, safety, and consistency in the UK
- C** Setting retail prices for manufactured goods

Q2. ISO standards are internationally recognized and aim to:

- A** Promote free trade by ensuring products and services are safe, reliable, and of good quality worldwide
- B** Dictate the aesthetic design of all global products
- C** Control the cost of raw materials in different countries

Q3. A company wishing to demonstrate that its quality management system meets international benchmarks would seek certification to:

- A** ISO 9001
- B** BS 8888
- C** ISO 14001

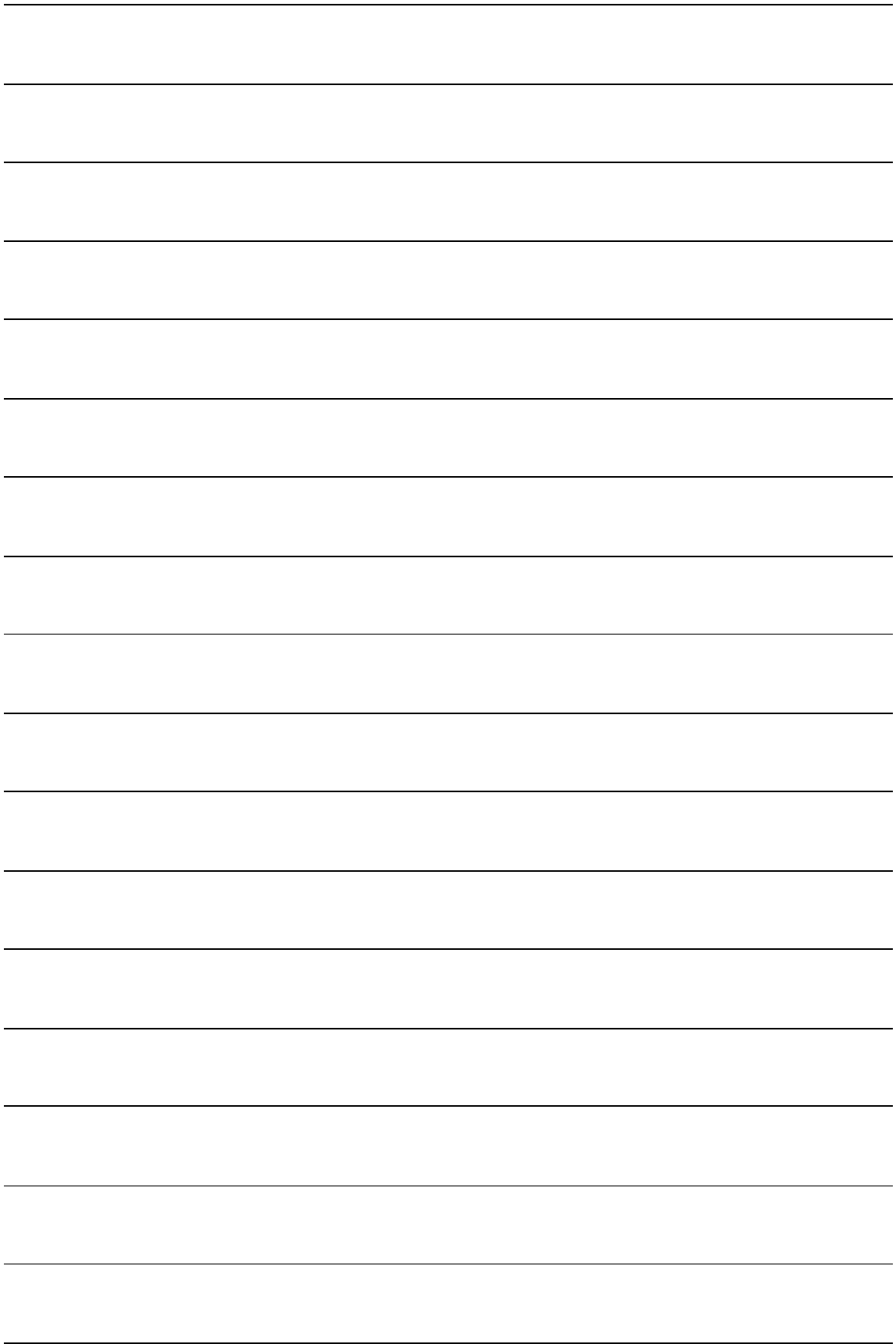
Q4. Ensuring that a product meets relevant standards during manufacturing often involves:

- A** Regular testing, inspection, and adherence to documented procedures
- B** Marketing the product as "premium" without verification
- C** Using the cheapest materials available

Q5a. Designers assess whether a design solution meets its stakeholder requirements. State two organisations that issue standards that need to be met in the design of products. **(2 marks)**

Q5b. Explain two ways in which product designers and manufacturers could test their products to ensure they meet relevant standards. Make reference to products in your answer. **(4 marks)**

Q6. Explain how BSI certification impacts on the purchase of a child's car seat by a consumer. **(6 marks)**



Answers

Q1. B

Q2. A

Q3. A

Q4. A

Q5a.

Possible responses may include: • BSI (1) • ISO (1) • Any other suitable response.

Q5b.

Possible ways may include:

- To check for levels of toxins (1). Children's toys could have paint scraped off and subjected to x rays to analyse elements in the finish and ensure that levels of elements such as lead are not too high (1).
- Cars could be subjected to wind tunnels/ crash tests (1) to check how aerodynamic they are/crumple zones and safety (1).
- In plastic bottle manufacture the bottles are tested to high pressure blow tests (1) to ensure that there are no cracks or leaks for the air to escape (1).
- Performance under different conditions
- Any other suitable response, that could include:
 - X rays to check for cracks and internal faults, checks for dimensions of parts to meet standards.

Q6.

Indicative content:

- BSI certification shows that the car seat has been rigorously tested before being able to be sold.
- Consumers will want to ensure that their child's seat is safe and fit for purpose.
- BSI certification will increase a brand's reputation by it becoming synonymous with a company that invests in testing and produce high quality safe products for transporting children.
- It will allow the company to display the kite mark on its seat and packaging, which consumers will associate with a safe and secure product and its presence is often a deciding factor when making a purchase over other car seat brands or models.

- It reassures consumers that the child's seat will undergo ongoing tests and faulty products recalled providing piece of mind to parents.
- It reassures the consumer that the seat will be up to date and meet current safety regulations such as rear facing requirements etc.
- BSI standards are updated periodically, which will reassure parents that current legislation is being met and this in turn will ensure the child seat is fit for purpose.

Note: This indicative content is not exhaustive: other creditworthy responses should be awarded marks as appropriate.

Q7.

Any six from the following :

Advantages

- Use of symbol inspires consumer confidence (1)
- Increased reputation (1) • Increased sales (1)
- Compliance brings a measure of legal protection / standards accepted by law courts (1)
- Employees have improved working conditions (1)
- Less employee absence / more motivated employees (1)
- Increased productivity (1)
- Reduces after sales costs (1)
- BSI standards internationally recognized (1)
- Opens up trade with other BSI recognized businesses (1)

Disadvantages

- High costs of setting up / changing to comply with standards (1)
- Many consumers do not know the significance of kitemark® (1)
- Increase the red-tape within business (1)

[max 5 from any one area]