

OCR A-Level

Evaluating Design Solutions Against Requirements (8.1a)

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. Functionality in a design solution is primarily assessed by:

- A** Measuring whether the product performs its intended tasks correctly and effectively
- B** Surveying customers about the product's colour and packaging
- C** Calculating the manufacturing cost per unit

Q2. Evaluating ease of use involves testing:

- A** How intuitive and straightforward the product is for the intended user
- B** The durability of the product under extreme conditions
- C** The profit margin expected from sales

Q3. A product that meets user needs successfully:

- A** Solves a problem or fulfils a desire for the target audience
- B** Is always the cheapest option available
- C** Uses the most advanced materials regardless of cost

Q4. Which method would best assess whether a design is **inclusive**?

- A** Testing with a diverse range of users, including those with disabilities or varied physical abilities
- B** Conducting a strength test on the product's materials
- C** Analysing the production speed on the assembly line

Q6. The image below shows a games controller.



Identify two ways in which the design of the controller is inclusive. Justify each of your answers. **(4 marks)**

Answers

Q1. A

Q2. A

Q3. A

Q4. A

Q5.

Possible responses may include:

- Ear hook: prevents the device falling off when in use (1) as it wraps around the ear and enables the ear to carry some of the weight (1).
- Battery compartment: has a ridge on the surface for grip (1) to make it easier for the user to open it (1).
- Ear Mould: moulded to fit an individual's ear (1) meaning the user does not need to worry about it falling out when moving around (1).
- Any other valid suggestion.5

Q6.

Positive ways may include:

- Black is a neutral colour (1) so will appeal to a wide range of genders (1).
- Buttons can be assigned different functions or left hand/right hand use can be set up (1) so users with less mobility/ who are left-handed will be able to use the range that is suitable/ comfortable for them (1)
- There are no words on the design - symbols are used (1) so it can be used by illiterate/ partially sighted or multiple languages without difficulty (1).
- Any other suitable response.

Reference to user settings to improve inclusivity of the display on screen maybe given credit. Inclusive design relates to barrier free use by all users e.g., children, adults, elderly, those with limited grip/ arthritis, left and right handers, partial or limited sight, colour blind, physical disabilities, language barriers, SEN needs and gender. Users should be specified.