

Commentary on candidate evidence

Candidate 2

The candidate was awarded a total of **66 marks**.

Section 1

Question 1(a)

The candidate was awarded **4 marks** for the following responses:

- 'Stainless steel...for the shelves...hygienic and easy to clean'
- Nylon is suitable for wheels...self-lubricating, meaning the wheels can move easily...without the need for added oil'
- 'Stainless steel is suitable for the frame as it is non-corrosive'
- 'Mild steel... side panel good strength allowing multiple tools to be hung...without it bending or breaking under the weight'

Question 1(b)

The candidate was awarded **6 marks** for the following responses:

- 'Extrusion...tubular frame'
- '...same cross section along its length'
- 'bending...tubular frame'
- 'Bending reduces the need for joins'
- 'making the frame even sturdier'
- 'Press forming produce the shelves'

Question 1(c)

The candidate was awarded **4 marks** for the following responses:

- 'wheels...very easy to move around'
- 'handles...easier to hold onto whilst moving it around'
- 'Borders on the shelves...move around without falling off the side'
- 'Tool hooks...easier to grab when needed'

Question 1(d)

The candidate was awarded **4 marks** for the following responses:

- 'benefit...don't have to design every component of the trolleys'
- 'can buy them in bulk'
- 'drawback...limit the designer's creativity'
- 'drawback...if they fail...company who made the trolley will gain the bad reputation'

Question 1(e)

The candidate was awarded **4 marks** for the following responses:

- 'benefits of a block model...gain feedback on...user trials'
- 'test the anthropometric data...dimensions of the handle...how the user holds it'
- 'create something they couldn't sketch on paper'
- 'sense of scale and proportion'

Section 2

Question 2(a)

The candidate was awarded **2 marks** for the following responses:

- 'Polypropylene'
- 'Impact resistant...knocked and bashed into without breaking'

Question 2(b)

The candidate was awarded **4 marks** for the following responses:

- 'strap on the helmet...stay secure on the child's head'
- 'comfortable...padding on the inside of helmet'
- 'hard shell of the helmet...feel secure and safe when bumping into things'
- 'Mesh air pockets...breathability and steady air flow'

Question 2(c)

The candidate was awarded **1 mark** for the following responses:

- simulation...test the strength of the hard outer shell...thrown around and thrown into walls and towards the floor to ensure it would break'

Question 3(a)

The candidate was awarded **2 mark** for the following responses:

- 'Advantage...provides the designer with free creative choice'
- 'disadvantage...isn't what the client wanted'

Question 3(b)

The candidate was awarded **2 marks** for the following responses:

- 'purpose...provide a beginning list of rules and regulations...ensure the initial ideas meet the client's needs'
- 'could include the quantity of the product required'

Question 3(c)

The candidate was awarded **2 marks** for the following responses:

- 'Create a table with the product split into'
- Give the components attributes'

- 'Randomly select...and draw it'

Question 3(d)

The candidate was awarded **4 marks** for the following responses:

- 'Rough sketches are used to create quick ideas'
- 'Show the inside of a design...how parts may fit together'
- 'Exploded views are used...the order of assembly'
- 'section view is used to show the inside...visualise where holes will be drilled'

Question 4(a)

The candidate was awarded **3 marks** for the following responses:

- 'celebrity within the field of the product promote it'
- 'billboards...where the product would be used...potential users will see it'
- 'social media and influencers to promote...more people will be aware of the product, potentially worldwide'

Question 4(b)

The candidate was awarded **2 marks** for the following responses:

- 'different sizes and colours...attractive to those who haven't purchased it already'
- 'Reduce the price which would encourage those who weren't willing to pay the initial price to buy the product'

Question 5(a)

The candidate was awarded **6 marks** for the following responses:

- 'Grip diameter...diameter of the handle'
- 'Hand width...length of the handle'
- 'Arm strength...how hard the door of the air fryer would be to open'
- 'Hand strength...easy the dial...would be to turn'

- 'green and red buttons...(stop and start the airfryer)'
- 'See-through door...view the food...putting the user at ease'

Question 5(b)

The candidate was awarded **0 marks** because the response is incorrect.

Question 5(c)

The candidate was awarded **2 marks** for the following responses:

- 'no one else can produce an idea/design you came up with'
- 'designers can be paid to sell their intellectual property'

Question 6(a)

The candidate was awarded **3 marks** for the following responses:

- 'magnet test...if it sticks it could be steel...doesn't it could be aluminium'
- 'burn test...smells of celery... its nylon'
- 'flame turns green...is copper'

Question 6(b)

The candidate was awarded **0 marks** because the response is incorrect.

Question 6(c)

The candidate was awarded **3 marks** for the following responses:

- 'Gantt charts...hierarchy of tasks...create an effective timeline of the production process'
- 'Gantt charts...save money...people will only be employed when they need them'
- 'Just -in-time...save money on storage...made for each incoming order...shipped as soon as they are finished'

Question 7

The candidate was awarded **8 marks**. This question is marked holistically and the marks awarded are for the overall response rather than individual points made. In terms of assessing knowledge of how consideration of the environment impacts products, this candidate has demonstrated extensive knowledge, covering a wide range of aspects and has given a response which goes beyond what would be required for full marks.