

Candidate 6

The candidate was awarded a total of **35 marks**.

Section 1

Question 1(a)

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

- ◆ 'Stainless steel ... won't rust.'
- ◆ 'Rubber is suitable for the handles ... hands won't slip off.'
- ◆ 'tubular mild steel frame ... unlikely to break under pressure.'
- ◆ 'polypropylene for the seat ... moulded into lots of shapes'

Question 1(b)

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

- ◆ 'Extrusion would be used to make the tubular stainless steel play-ground digger frame'
- ◆ 'same size tube to be made exactly the same.'
- ◆ 'injection moulding would be used for the ABS wheels'

Question 1(c)

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

- ◆ 'width of the tubular steel ... wrap their hands around it.'
- ◆ 'making sure the chair is not too far off the ground ... enough momentum to push and turn'
- ◆ 'child could push the handles forward easy enough and not use too much effort.'

Question 1(d)

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

- ◆ 'adding steel balls ... gives the child something to grip onto.'
- ◆ 'at any point the bolts get loose they can be tightened.'

Question 1(e)

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

- ◆ 'A Gantt chart could be used ... how long exactly they have to do it.'

Section 2

Question 2(a)

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

- ◆ 'it won't melt and go soft' (heat resistant)

Question 2(b)

The candidate was awarded **0 marks** because their response does not address why compression moulding is suitable for the manufacture.

Question 2(c)

The candidate was awarded **0 marks** because their response only references one idea generation technique (brainstorming), however their response is incorrect and does not describe brainstorming.

Question 3(a)

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

- ◆ 'access them very easily'
- ◆ 'if the bike was loose most parts can be tightened with spanners or screw drivers.'

Question 3(b)

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

- ◆ 'materials can be added to give a life like appearance'
- ◆ 'CAD files can be sent anywhere in the world and modified'

Question 3(c)

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

- ◆ 'so people loose their jobs as they aren't needed.'

Question 4(a)

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

- ◆ 'there is no need to assemble a whole team because the computer tells the machine what to do.'

Question 4(b)

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

- ◆ 'by gathering people who need prosthetic legs ... like and dislike and any changes they could make.'

Question 4(c)(i)

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

- ◆ 'give the designer exactly how the wish for the design to look'

Question 4(c)(ii)

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

- ◆ 'find out how the product will be made and what it will be made of.'

Question 5(a)

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

- ◆ 'by using the primary colour yellow this allows for it to stand out against the dark grey and contrast.'
- ◆ 'thought about shape by using the 3 tier lid going from big to small'

Question 5(b)

The candidate was awarded **0 marks** because their response referring to watermarks is not relevant to intellectual property rights.

Question 6

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

- ◆ 'an ergonomist ... consumer will be able to use it.'
- ◆ 'The market researcher is the person who will ask people from the target market of their opinions'
- ◆ 'The project manager ... everything is running smoothly'

Question 7(a)(i)

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

- ◆ 'used in plastic tupperware ... would mean the tub is polypropylene.'

Question 7(a)(ii)

The candidate was awarded 0 marks because they're response is vague and does not demonstrate the required knowledge and understanding.

Question 7(b)

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

- ◆ 'Manufacturers could use less materials'
- ◆ 'make products using easier recyclable materials'
- ◆ 'make the products re-usable'

Question 8

The candidate was awarded **3 marks** because they displayed adequate knowledge and understanding of types of models used at certain stages of the design process and the information that can be gained.

The candidate has referenced four different modelling types and has included some examples. However, repetition is present and each model type has a very basic response to how it would be used in the design process.