

Commentary on candidate evidence

The evidence for these candidates has achieved the following marks for each question of the question paper.

Candidate 1

Section 1 - Total marks 58/60

Q1(a) (i)

The candidate was awarded **1 mark** because 'beech' is a correct response.

Q1(a) (ii)

The candidate was awarded **2 marks** because 'held at both ends in the chuck' and 'you cut waste wood' (parting off) are correct responses.

Q1(a) (iii)

The candidate was awarded **1 mark** because 'Parallel turning' is a correct response.

Q1(a) (iv)

The candidate was awarded **1 mark** because 'Outside callipers' is a correct response.

Q1(b) (i)

The candidate was awarded **3 marks** because 'Cut groove', 'Wood plane' and 'Tenon saw' are correct responses.

Q1(b) (ii)

The candidate was awarded **1 mark** because 'So chamfer is even across all pieces.' is a correct response.

Q1(b) (iii)

The candidate was awarded **2 marks** because 'place try square on corner' and 'Measure diagonals.' are correct responses. The answer is supported with sketches.

Q1(c) (i)

The candidate was awarded **2 marks** because 'MDF will not warp' and 'Easy to drill' are correct responses.

Q1(c) (ii)

The candidate was awarded **1 mark** because 'Check if bit is loose' is a correct response. The question is a state question therefore only the first two responses can be awarded marks.

Q1(c) (iii)

The candidate was awarded **3 marks** because 'clear of debris', 'Do not use excess paint on brush' and 'no loose bristles' are correct responses.

Q1(d)

The candidate was awarded **2 marks** because 'Strip heater used to heat line of fold' and 'Fold plastic to shape' are correct responses.

Q1(e) (i)

The candidate was awarded **2 marks** because 'strong so it will support the weight of a phone' and 'fairly malleable' are correct responses.

Q1(e) (ii)

The candidate was awarded **3 marks** because 'Steel rule used to find x depth', 'marked with scribe' and 'Engineers square used' are correct responses.

Q1(e) (iii)

The candidate was awarded **2 marks** because 'Use junior hacksaw...to cut a diagonal' and 'Use flat file to...curve desired' are correct responses.

Q1(e) (iv)

The candidate was awarded **2 marks** because 'Place metal on a 90° corner', (implying using a former) and 'Use a hide mallet to evenly hit metal' are correct responses.

Q2(a) (i)

The candidate was awarded **3 marks** because 'Develop a list of questions', 'Interview people of target market' and 'Review answers' are all correct responses.

Q2(a) (ii)

The candidate was awarded **1 mark** because 'User trails' is a correct response.

Q2(b)

The candidate was awarded **1 mark** because 'Used as guidance when developing' is a correct response. 'check that ideas are still relevant' would also have been awarded a mark.

Q2(c)

The candidate was awarded **3 marks** because 'Sit as a group', (implies a group activity), 'Write down all ideas' and 'Use good ideas and aspects of bad ones to generate new ideas' are correct responses.

Q3(a)

The candidate was awarded **2 marks** because 'Easier to do...would be difficult to model or make on CAD' and 'Cheaper as there is no need to pay for modelling materials' are correct responses.

Q3(b)

The candidate was awarded **2 marks** because 'manufacturers can see all measurements and materials needed' are correct responses.

Q4

The candidate was awarded **3 marks** because 'hold and analyse the ergonomics of the design in order to refine design', 'can be shown to clients' and 'used to test specific parts' are correct responses.

Q5(a)

The candidate was awarded **4 marks** because 'Circumference of iron handle...able to be held by small hands', 'Handle to adjust height...by weaker hands', 'Height of ironing board will be adjustable' and 'Buttons on iron will be easy to press' are correct responses.

Q5(b)

The candidate was awarded **2 marks** because 'so shirts and trousers can fit' and 'needs to be steady on all surfaces so rubber feet are there so it doesn't slide' are correct responses.

Q5(c)

The candidate was awarded **2 marks** because 'steam ejection should stop (i.e. when upright)' and 'Cable for iron should be heat resistant' are correct responses.

Q6(a)

The candidate was awarded **3 marks** because 'blue colour is bright and eye-catching', 'Unusual shape of speaker' and 'Round inner shape is in harmony...speaker' are correct responses.

Q6(b)

The candidate was awarded **2 marks** because 'Customers trust the brand' and 'Customers may be loyal to your brand' are correct responses.

Q6(c)

The candidate was awarded **2 marks** because 'Celebrity endorsement' and 'Television Adverts' are correct responses.

Section 2 – Total marks 18/20**Q7(a) (i)**

The candidate was awarded **2 marks** because 'Iron' and 'It is heavy' are correct responses.

Q7(a) (ii)

The candidate was awarded **2 marks** because 'Mild steel' and 'able to be put under stress...since it holds weights' are correct responses.

Q7(b)

The candidate was awarded **2 marks** because 'Runner and riser marks' and 'Lack of detail...cannot show intricate details' are correct responses.

Q7(c)

The candidate was awarded **1 mark** because 'So they are all the same size' is a correct response. The second statement, 'Easier to die cast than sand cast then create thread' is an unqualified easy response.

Q7(d)

The candidate was awarded **2 marks** because 'Rotational Moulding' and 'Creates a hollow shape' are correct responses.

Q8(a)

The candidate was awarded **2 marks** because 'Products are cheaper for consumers', and 'are fewer jobs' are correct responses. The statement 'dumping causes damage to environment' is in regard to the impact on the environment, not society.

Q8(b)

The candidate was awarded **1 mark** because 'Some products are custom ordered' is a correct response.

Q9

The candidate was awarded **2 marks** because 'cheaper as manufacturers do not need to spend time making them' and 'reliable as the producer only makes that component', (quality assurance) are correct responses. The last statement 'can be used in multiple designs' could also have been awarded a mark.

Q10

The candidate was awarded **4 marks** because 'factory waste is recycled or disposed of in safe ways', 'Use a renewable energy', 'Ensure resources for products come from sustainable sources' and 'Make their products easy to recycle' are correct responses.

Total marks – 76/80