Commentary on candidate evidence

The candidate evidence has achieved the following marks for each task within this course assessment component.

Candidate 1

This candidate has achieved **38/50 marks**.

Task 1a (i)

- The candidate was awarded **4 marks:**
- They have produced three related orthographic views in the orientation as shown on data sheet 2 (1 mark).
- The candidate has created the correct stepped cutting plane as shown on data sheet 2, and it is correct to British Standards (1 mark)
- The top and bottom halves of the cab correctly in all instances (2 marks).

Task 1a (ii)

- The candidate was awarded **1 mark:**
- The drawing is not in the correct orientation and the end elevation is not in the same orientation as data sheet 2 (0 marks).
- The model of the bucket is correct in all instances (1 mark).

Task 1a (iii)

- The candidate was awarded **2 marks:**
- They have included accurate hidden detail for the views. The follow-on error marking rule is applied in this instance for the views of the bucket (1 mark).
- They have applied appropriate use of scale for the views created in Task 1a (i) and (ii) (1 mark).
- The candidate has not included key dimensions to allow for manufacture are not included. The distance between the axel bosses on the cab is not stated (0 marks).

Task 1b

- The candidate was awarded **5 marks:**
- The wheel (1 mark) and the hook (1 mark) are accurately modelled.
- The cutting planes as shown on data sheet 1 are correct (1 mark).
- ‘Detail C’ is not an enlargement view (0 marks).
- ‘Detail D’ has a relevant enlargement view of the correct assembly of the hook to the cab (1 mark).
- The 45° angle in the enlargement view is correct (1 mark).

Task 1c

- The candidate was awarded **2 marks:**
- For the exploded isometric drawing (1 mark).
- The components have not been exploded correctly; the hook goes horizontally backwards which it could not do due to the nature of the component. It would need to be exploded at 45° (0 marks).
- The components have been spaced sufficiently to avoid overlaps (1 mark).

Task 1d

- The candidate was awarded **2 marks:**
- Linear, radial and diameter dimension types in drawings (1 mark).
- Title block with relevant information and 3rd angle projection symbol (1 mark).
- Views are labelled incorrectly; section views have been labelled as basic orthographic views (0 marks).

Task 2a

The candidate was awarded **7 marks:**

- The display is the correct size and there is no text in the 'non-copy text' area (1 mark).
- The following is included: the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark).
- Incorrect use of the copy text; they have used the header as the headline (0 marks).
- Balance and texture are identified however they are not correctly justified their use (0 marks).
- Flow text along a path, transparency, and reverse are labelled (1 mark).
- Simple, but effective, use of flow text along a path (1 mark).
- Effective use of transparency on the background (1 mark).
- Effective use of reverse (1 mark).
- Simplistic use of DTP principles and elements, providing limited visual impact (1 mark).

Task 2b

The candidate was awarded **7 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).
- A range of materials or colours have been applied to STEP files and the dune digger toy, taking notice of the specification list (1 mark).
- The material or colour choices are appropriate to create an effective scene (1 mark).

- The candidate has produced the two required views at a suitable size (1 mark).
- The application of appropriate lighting, highlights and shadows is good in rendered views. Some areas are a little too dark and some shadows are a little harsh (1 mark).
- The output quality of the render provides a good level of clarity with some pixelation or grain visible in rendered views (1 mark).

Task 3a

The candidate was awarded **4 marks:**

- The parts have been sketched in proportion to each other and are correctly aligned (1 mark).
- The cuboid and sphere are sketched accurately (1 mark).
- The central cut cylinder is sketched accurately (1 mark).
- The feet are sketched accurately (1 mark).

Task 3b

The candidate was awarded **4 marks:**

- The views have been sketched in proportion to each other and are correctly projected (1 mark).
- The cut cylinder and octagon across three views are accurately sketched (1 mark).
- The central cylinder and the feet across three views are accurately sketched (1 mark).
- Correct hidden detail and centre lines across three views (1 mark).

Candidate 2

This candidate has achieved **29/50 marks**.

Task 1a (i)

The candidate was awarded **4 marks:**

- Three related orthographic views in the orientation as shown on data sheet 2 (1 mark).
- Correct stepped cutting plane as shown on data sheet 2 and it is correct to British Standards (1 mark).
- The cab is modelled correctly in all instances (2 marks).
- The candidate has modelled the top and bottom halves of the cab correctly in all instances (2 marks).

Task 1a (ii)

The candidate was awarded **1 mark:**

- The drawing is not in the correct orientation and the end elevation is not as shown on data sheet 2 (0 marks).

- The model of the bucket is correct in all instances (1 mark).

Task 1a (iii)

The candidate was awarded **2 marks:**

- Accurate hidden detail for the views. The follow-on error marking rule is applied in this instance for the views of the bucket (1 mark).
- Appropriate use of scale for the views created in Task 1a (i) and (ii) (1 mark).
- Key dimensions to allow for manufacture are not included. In this instance, the distance between the axel bosses on the cab and the major and minor axes of the ellipse have been omitted (0 marks).

Task 1b

The candidate was awarded **2 marks:**

- The wheel is not modelled correctly; the central extrusion to join the axel is too deep and the internal pin is too shallow (0 marks).
- The modelling of the hook has one minor error; the profile for the extrude along a path is centrally positioned (1 mark).
- The cutting planes have not been created as requested in the task (0 marks)
- 'Detail L' is not an enlargement view (0 marks).
- 'Detail K' is not an enlargement view (0 marks).
- 45° angle on the enlargement view (1 mark).

Task 1c

The candidate was awarded **3 marks:**

- Exploded isometric drawing (1 mark).
- The angle of the hook has been rotated so that it would be exploded by moving it away horizontally and this is valid based on their assembly of the model (1 mark).
- The components have been spaced sufficiently to avoid overlaps (1 mark).

Task 1d

The candidate was awarded **3 marks:**

- Linear, radial and diameter dimension types in drawings (1 mark).
- Title block with relevant information and 3rd angle projection symbol (1 mark)
- Views labelled correctly (1 mark).

Task 2a

The candidate was awarded **8 marks:**

- The display is the correct size and there is no text in the 'non-copy text' area (1 mark).
- The following is included: the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark).
- Incorrect use of the copy text, the header has been used as the headline (0 marks).

- Emphasis and texture are identified. Texture is justified incorrectly, emphasis is justified correctly (1 mark).
- Flow text along a path, transparency, and reverse labelled correctly (1 mark).
- Simple, but effective use of flow text along a path (1 mark)
- Effective use of transparency on the background (1 mark)
- Effective use of reverse (1 mark).
- Simplistic use of DTP principles and elements overall, providing limited visual impact (1 mark).

Task 2b

The candidate was awarded **5 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in the correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).
- A range of materials or colours have been applied to STEP files and the dune digger toy however, the specification list has not been used, green and brown is applied on the Cozzlebot (0 marks).
- The material or colour choice are not appropriate to create an effective scene (0 marks).
- The candidate has produced the two required views at a suitable size (1 mark).
- Good application of appropriate lighting, highlights and shadows is good in rendered views. Some areas are a little too dark and some shadows are a little harsh (1 mark).
- The output quality of the render provides a good level of clarity with some pixelation or grain visible in rendered views (1 mark).

Task 3a

The candidate was awarded **0 marks:**

- The parts are not sketched in proportion to each other or correctly aligned; the feet are particularly misaligned (0 marks).
- The sketch of the cuboid and sphere is not accurate; the sphere is too small (0 marks).
- The sketch of the central cut cylinder is not accurate. The ellipse at the top is heavily skewed and there is no evidence of a cut (0 marks).
- The sketch of the feet is not accurate (0 marks).

Task 3b

The candidate was awarded **1 mark:**

- The views are not sketched proportionally to each other, and the plan is too small (0 marks).
- The sketch of the cut cylinder and octagon is not accurate across three views (0 marks).

- Applying the follow-on error, the sketch of the central cylinder and the feet across three views is an accurate representation (1 mark).
- There is no hidden across the three views (0 marks).

Candidate 3

This candidate has achieved **43/50 marks**.

Task 1a (i)

The candidate was awarded **4 marks:**

- They have produced the three related orthographic views as requested in the task, and in the orientation as shown on Data sheet 2 (1 mark).
- They have created the correct stepped cutting plane as shown on data sheet 2, and it is correct to British Standards (1 mark).
- They have modelled the top and bottom halves of the cab correctly in all instances (2 marks).

Task 1a (ii)

The candidate was awarded **2 marks:**

- They have provided three related views in the correct orientation based on the end elevation shown on Data sheet 3 in the task (1 mark).
- They have correctly modelled the bucket component in all instances (1 mark).

‘Detail A’ was not required for this task. Candidates do not need to provide views that are not asked for, even if they are shown in the task.

Task 1a (iii)

The candidate was awarded **2 marks:**

- They have included accurate hidden detail shown in orthographic views of both components (1 mark).
- They have used appropriate application of scale to both parts (1 mark).
- Some of the key dimensions are missing, which would not fully enable manufacture. In this instance, the major and minor axes of the ellipse have been omitted (0 marks).

Task 1b

The candidate was awarded **5 marks:**

- The modelling of the wheel (1 mark) and hook (1 mark) components are correct in all instances.
- Cutting planes are in the correct position and the thick ends extend beyond the views (1 mark).
- The enlargement view is relevant however, incorrect assembly of parts 1 and 4 causes an overlap of the wheel and the cab (0 marks).
- The enlargement view is relevant, and the assembly of the hook and cab is correct (1 mark).
- The angular dimension is clearly displayed on the enlargement view (1 mark).

Task 1c

The candidate was awarded **3 marks:**

- They have produced an exploded view (1 mark).
- All components are correctly aligned on the correct axes and in the correct order (1 mark).
- The components do not overlap (1 mark).

Task 1d

The candidate was awarded **2 marks:**

- They have included linear, radial and diameter dimension types (1 mark).
- The template included has a suitable title for the drawings, the date, a scale, and a 3rd angle projection symbol (please see course report for session 2021-22 for accurate 3rd angle projection symbol standards) (1 mark).
- The candidate has not named their detail views correctly (0 marks).

Task 2a

The candidate was awarded **9 marks:**

- The layout has not been created to the sizes stipulated in the assignment task (0 marks).
- They have included the necessary graphic and textual information stipulated in the brief. They have included the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark). The candidate has used the copy text incorrectly by making the header their headline (0 marks).
- Value has been incorrectly applied however, emphasis has been identified and justified. Texture has been identified but not justified. Rhythm has been identified and justified (2 marks).
- The candidate has correctly labelled their use of flow text along a path, transparency, and reverse (1 mark).
- They have made a simple, but effective, use of flow text along a path (1 mark). The candidate has made effective use of transparency on the background (1 mark) and has made effective use of reverse (1 mark).
- The candidate has shown evidence of central alignment of elements and effective use of image editing in the background. The level of skill applied is good throughout the majority of the layout and so overall, the candidate has applied Design Elements and Principles with a good level of skill, providing some visual impact (2 marks)

Task 2b

The candidate was awarded **9 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in the correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).

- A range of materials or colours have been applied to STEP files and the dune digger toy, taking notice of specification list (1 mark).
- The material or colour choice are appropriate to create an effective scene (1 mark).
- The candidate has produced the two required views at a suitable size (1 mark).
- The candidate's skilled application of appropriate lighting, highlights and shadows creates effective rendered views (2 marks).
- The output quality of the render provides a high level of clarity with no pixelation or grain visible in the rendered views (2 marks).

Task 3a

The candidate was awarded **4 marks:**

- The parts have been sketched in proportion to each other and correctly aligned (1 mark).
- They have sketched an accurate representation of the cuboid and sphere (1 mark).
- The candidate has sketched an accurate representation of the central cut cylinder (1 mark) and has sketched an accurate representation of the feet (1 mark).

Task 3b

The candidate was awarded **3 marks:**

- The views have been sketched proportionally to each other and correctly projected (1 mark).
- They have sketched an accurate representation of the cut cylinder and octagon across three views (1 mark).
- The candidate has sketched an accurate representation of the central cylinder and the feet across three views (1 mark).
- They have not included correct centre lines across three views; they have been omitted from the cut cylinder (0 marks).

Candidate 4

This candidate has achieved **32/50 marks**.

Task 1a (i)

The candidate was awarded **4 marks:**

- They have produced the three related orthographic views as requested in the task and in the orientation as shown on Data sheet 2 (1 mark).
- They have created the correct stepped cutting plane as shown on Data sheet 2 and it is correct to British Standards (1 mark).
- The candidate has modelled the top and bottom halves of the cab correctly in all instances (2 marks).

Task 1a (ii)

The candidate was awarded **2 marks:**

- They have provided three related views in the correct orientation based on the end elevation shown on Data sheet 3 in the task (1 mark).
- They have correctly modelled the bucket component in all instances (1 mark).

Task 1a (iii)

The candidate was awarded **1 mark:**

- They have not included accurate hidden detail on the end elevation of the cab view (0 mark).
- They have used appropriate application of scale to both parts (1 mark).
- Some of the key dimensions are missing which would not fully enable manufacture. In this instance, the axes of the ellipse and antenna dimensions have been omitted (0 marks).

Task 1b

The candidate was awarded **6 marks:**

- The modelling of the wheel (1 mark) and hook (1 mark) components are correct in all instances.
- Cutting planes are in the correct position and the thick ends extend beyond the views (1 mark).
- The enlargement view is relevant, and assembly of the cab and wheel is correct (1 mark).
- The enlargement view is relevant, and assembly of the hook and cab is correct (1 mark).
- The angular dimension is clearly displayed on the enlargement view (1 mark).

Task 1c

The candidate was awarded **2 marks:**

- They have produced an exploded view (1 mark).
- All components are correctly aligned on the correct axes and in the correct order (1 mark).
- The wheel components overlap (0 marks).

Task 1d

The candidate was awarded **2 marks:**

- They have included linear, radial and diameter dimension types (1 mark).
- They have been provided with a template showing the 3rd angle projection symbol by the centre but has not included any further information on any drawings (0 marks).
- The candidate has named their detail views correctly (1 mark).

Task 2a

The candidate was awarded **7 marks:**

- They have created the layout to the stipulated sizes (1 mark).

- They have included all necessary graphic and textual information stipulated in the brief. They have included the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark) and have used the copy text incorrectly by making their header the headline (0 marks).
- Balance and texture have both been correctly identified but have not been justified (0 marks).
- The candidate has correctly labelled their use of flow text along a path, transparency, and reverse (1 mark) and has made a simple, but effective, use of flow text along a path (1 mark).
- They have made effective use of transparency on the background (1 mark) and of reverse (1 mark).
- The candidate has shown evidence of central alignment of elements. They have shown use of image editing in the background. The level of skill applied is simplistic throughout the majority of the layout and so overall, the candidate has applied Design Elements and Principles with a simple level of skill, providing little visual impact (1 mark)

Task 2b

The candidate was awarded **5 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in the correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).
- A range of materials or colours have been applied to STEP files and the dune digger toy however, orange has been applied to the Cozzlebot STEP file and does not take notice of specification list (0 marks).
- The material or colour choice are appropriate to create an effective scene (1 mark).
- The viewpoints given are not scaled to full page for both rendered views (0 marks).
- The candidate's skilled application of appropriate lighting, highlights and shadows creates good, rendered views (1 mark).
- The output quality of the render provides a good level of clarity, but insufficient time has been allowed for the render to process, resulting in visible grain (1 mark).

Task 3a

The candidate was awarded **0 marks:**

- They have shown a lack of proportion throughout the views produced (0 marks).
- The cuboid is not represented accurately; it is too short (0 marks).
- The isometric circle is inaccurate, and the external edges are not parallel (0 marks).

- The spacing of the feet is irregular and they are not positioned correctly (0 marks).

Task 3b

The candidate was awarded **3 marks:**

- They have used proportion and correctly projected each view. The candidate has provided the left-hand end elevation, which is correctly orientated, and this is sufficient to provide detail (1 mark).
- The cut cylinder and octagon are correctly represented across three views (1 mark).
- The central cylinder and feet have been inaccurately represented (0 marks). Centre lines and hidden detail are accurate in all instances (1 mark).

Candidate 5

This candidate has achieved **19/50 marks**.

Task 1a (i)

The candidate was awarded **3 marks:**

- They have produced the three related orthographic views as requested in the task, and in the orientation as shown on data sheet 2 (1 mark).
- They have created the correct stepped cutting plane as shown on data sheet 2 and it is correct to British Standards (1 mark).
- The candidate has modelled the top half of the cab correctly (1 mark) however, the bottom half of the cab has some errors; the shell has not removed the bottom surface and would appear to have been applied after adding the axels (0 marks).

Task 1a (ii)

The candidate was awarded **1 mark:**

- They have produced the views in the orientation as shown on Data sheet 3 (1 mark).
- The modelling of the bucket has some errors; the array has not been modelled correctly and the 40° line at the end of the bucket is incorrect (0 marks).

Task 1a (iii)

The candidate was awarded **2 marks:**

- They have included accurate hidden detail for the views as they have created them, the follow-on error is applied in this instance for the views of the bucket (1 mark).
- They have applied appropriate use of scale for the views created in Task 1a (i) and (ii) (1 mark).
- The candidate has not included key dimensions to allow for manufacture. In this instance, the distance between the axel bosses on the cab and the major and minor axes of the ellipse have been omitted (0 marks).

Task 1b

The candidate was awarded **2 marks:**

- The tread has been modelled incorrectly and the depth of the hole for the axel is longer than it should be in the wheel (0 marks).
- The hook has been modelled accurately (1 mark).
- The enlargement view of the wheel and cab do not show how they join (0 marks).
- The enlargement view of the hook and cab show their assembly, even though the angle is incorrect (1 mark).
- The candidate has overridden the textual information here and incorrectly stated that the angle is 135° (0 marks). Candidates should be discouraged from overriding dimensions if they are incorrect, as this is not good practice.

Task 1c

The candidate was awarded **3 marks:**

- They have produced an exploded view (1 mark).
- All components are correctly aligned on the correct axes, and in the correct order (1 mark).
- The components do not overlap (1 mark).

Task 1d

The candidate was awarded **1 mark:**

- They have not included a diameter dimension (0 marks).
- They have included a suitable title for the drawing, a date, and a scale (1 mark).
- The 3rd angle projection symbol is incorrect but was not required in this instance for the mark *(*please see course report for session 2021-22 for accurate 3rd angle projection symbol standards*)*.
- The section and detail views have not been labelled correctly (0 marks).

Task 2a

The candidate was awarded **2 marks:**

- They have included text in the ‘non-copy text’ area (0 marks).
- They have only included two given images; the logo does not count here (0 marks).
- They have made the header and footer text too large; it is larger than the body text (0 marks).
- Balance and value have been correctly identified, but incorrectly justified (0 marks).
- Transparency has been incorrectly labelled (0 marks).
- The candidate has made effective use of flow text along a path (1 mark) but has not made effective use of transparency (0 marks).
- They have made effective use of reverse (1 mark).
- Overall, the candidate has made simplistic use of DTP principles and elements, providing limited visual impact (1 mark).

Task 2b

The candidate was awarded **5 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The front wheel of the dune digger toy is sinking into the display stand (0 marks).
- A range of materials or colours have been applied to the STEP files and the dune digger toy, taking notice of specification list (1 mark).
- The material or colour choice of the dune digger toy is not appropriate to create an effective scene; when other toys in the range have multiple colours, we would expect the dune digger to be the same (0 marks).
- The candidate has produced the two required views at a suitable size (1 mark).
- The candidate's application of appropriate lighting, highlights and shadows is good in rendered views. Some areas are a little too dark and some shadows are a little harsh (1 mark).
- The output quality of the render provides a good level of clarity with some pixelation or grain visible in rendered views (1 mark).

Task 3a

The candidate was awarded **0 marks:**

- The parts are not sketched in proportion to each other or correctly aligned (0 marks).
- They have not sketched an accurate representation of the cuboid and sphere (0 marks).
- The candidate has not sketched an accurate representation of the central cut cylinder (0 marks), and they have not sketched an accurate representation of the feet (0 marks).

Task 3b

The candidate was awarded **0 marks:**

- The views are not sketched proportionally to each other (0 marks).
- They have not sketched an accurate representation of the cut cylinder and octagon across three views (0 marks).
- The candidate has not sketched an accurate representation of the central cylinder and feet across three views (0 marks) and have not included correct hidden detail and centre lines across three views (0 marks).

Candidate 6

This candidate has achieved **23/50 marks**.

Task 1a (i)

The candidate was awarded **3 marks:**

- They have produced the three related orthographic views as requested in the task, and in the orientation as shown on data sheet 2 (1 mark).

- They have created the correct stepped cutting plane as shown on data sheet 2 and it is correct to British Standards (1 mark).
- The candidate has modelled the top half of the cab correctly, ignoring the shell (1 mark).
- The bottom half of the cab has some errors in the application of the shell as it has removed the interior of the antenna and additional material from the casing. The shell would appear to have been applied after adding the antenna (0 marks).

Task 1a (ii)

The candidate was awarded **2 marks:**

- They have provided three related views in the correct orientation based on the end elevation shown on data sheet 3 in the task (1 mark).
- They have correctly modelled the bucket component in all instances (1 mark).

Task 1a (iii)

The candidate was awarded **1 mark:**

- They have not included accurate hidden detail on the end elevation of the cab view (0 mark).
- They have used appropriate application of scale to both parts (1 mark).
- Some of the key dimensions are missing which would not fully enable manufacture. In this instance, the major and minor axes of the ellipse have been omitted (0 marks).

Task 1b

The candidate was awarded **4 marks:**

- The modelling of the wheel (1 mark) and hook (1 mark) components are correct in all instances.
- A minor inconsistency on the depth of the hole of the wheel is evident however, they have produced enough evidence to be awarded the mark. Cutting planes are in the correct position, but the thick ends do not extend beyond the views (0 marks).
- The follow-on rule has been applied to both enlargement views as the model is assembled correctly based on what the candidate has produced for the cab and wheel (1 mark).
- The enlargement view is relevant, and assembly of the hook and cab is correct (1 mark).
- The angular dimension is not displayed on the enlargement view (0 marks).

Task 1c

The candidate was awarded **2 marks:**

- They have produced an exploded view (1 mark).
- The hook has not been projected at the correct angle of 45° (0 marks).
- The components do not overlap (1 mark).

Task 1d

The candidate was awarded **0 marks:**

- They have not included a diameter dimension (0 marks).
- They have not included any information in the given title block, which also includes a 1st angle projection symbol (0 marks).
- The 3rd angle projection was not required in this instance for the mark. The section and detail views have not been labelled correctly (0 marks).

Task 2a

The candidate was awarded **4 marks:**

- The layout has not been created to the sizes stipulated in the brief (0 marks). They have included all necessary graphic and textual information stipulated in the brief. They have included the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark). They have used an inappropriate font size for the header (0 marks).
- Proportion, emphasis and texture have been identified, but not justified (0 marks). All three DTP technique have been correctly labelled (1 mark).
- The candidate has made effective use of flow text along a path (1 mark).
- They have not made effective use of transparency (0 marks) but have made effective use of reverse (1 mark).
- Overall, the candidate has made simplistic use of DTP principles and elements, providing limited visual impact (1 mark).

Task 2b

The candidate was awarded **7 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).
- A range of materials or colours have been applied to STEP files and the dune digger toy, taking notice of specification list. Green is accepted for the dune digger toy as candidates can make their own material choice for this model (1 mark).
- The material or colour choice is not appropriate as the application of the blue obscures detail in certain components (0 marks).
- The candidate has produced the two required views at a suitable size (1 mark).
- The candidate's skilled application of appropriate lighting, highlights and shadows creates effective rendered views (2 marks).
- The output quality of the render provides a good level of clarity with some pixelation visible in the rendered views (1 mark).

Task 3a

The candidate was awarded **0 marks:**

- The parts are not sketched in proportion to each other or correctly aligned; the feet are particularly misaligned (0 marks).
- They have not sketched an accurate representation of the cuboid and sphere, the sphere is too small (0 marks).
- They have not sketched an accurate representation of the central cut cylinder, the ellipse at the top is heavily skewed and there is no evidence of a cut (0 marks).
- They have also not sketched an accurate representation of the feet (0 marks).

Task 3b

The candidate was awarded **0 marks:**

- The views are not sketched proportionally to each other and the plan is too small (0 marks).
- They have not sketched an accurate representation of the cut cylinder and octagon across three views (0 marks).
- They have also not sketched an accurate representation of the central cylinder and feet across three views (0 marks), and they have not included any hidden detail across the three views (0 marks).

Candidate 7

This candidate has achieved **43/50 marks**.

Task 1a (i)

The candidate was awarded **3 marks:**

- They have produced the three related orthographic views as requested in the task, and in the orientation as shown on data sheet 2 (1 mark).
- They have created the correct stepped cutting plane as shown on data sheet 2 and it is correct to British Standards (1 mark).
- The candidate has modelled the top half of the cab correctly, ignoring the shell (1 mark).
- The bottom half of the cab has not been shelled properly as the bottom surface has not been removed (0 marks).

Task 1a (ii)

The candidate was awarded **2 marks:**

- They have provided three related views in the correct orientation, based on the end elevation shown on data sheet 3 in the task (1 mark).
- They have correctly modelled the bucket component. The 45° angle should be 40° but as this is one minor error, it can be overlooked, and the mark awarded (1 mark).

Task 1a (iii)

The candidate was awarded **3 marks:**

- They have included accurate hidden detail for the views as they have created them (1 mark).
- They have applied appropriate use of scale for the views created in Task 1a (i) and (ii) (1 mark)
- They have included all key dimensions to allow for manufacture (1 mark).

Task 1b

The candidate was awarded **6 marks:**

- The modelling of the wheel (1 mark) and hook (1 mark) components are correct in all instances.
- Cutting planes are in the correct position and thick ends extend beyond the views (1 mark).
- The enlargement view is relevant, and assembly of the cab and wheel is correct (1 mark).
- The enlargement view is relevant, and assembly of the hook and cab is correct (1 mark).
- The angular dimension is clearly displayed on the enlargement view (1 mark).

Task 1c

The candidate was awarded **3 marks:**

- They have produced an exploded isometric drawing as requested in the task (1 mark).
- The components are all exploded, in order and are correctly aligned (1 mark) and have been spaced sufficiently to avoid overlaps (1 mark).

Task 1d

The candidate was awarded **3 marks:**

- They have included linear, radial and diameter dimension types (1 mark).
- The template included has a suitable title for the drawings, the date, a scale, and a 3rd angle projection symbol (please see course report for session 2021-22 for accurate 3rd angle projection symbol standards*)* (1 mark).
- They have named their views correctly (1 mark).

Task 2a

The candidate was awarded **11 marks:**

- The layout has been created to the sizes stipulated in the assignment task, and notice has been taken of the non-text area. Although the layout has scaled when printed, the proportions clearly indicate it was created at the correct size (1 mark).
- They have included the necessary graphic and textual information stipulated in the brief. They have included the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark).
- They have used the copy text correctly (1 mark).

- Emphasis, rhythm, and balance have all been correctly identified, and have also all been correctly justified (2 marks).
- The candidate has correctly labelled their use of flow text along a path, transparency, and reverse (1 mark).
- They have made a simple, but effective, use of flow text along a path (1 mark).
- They have made effective use of transparency on the background images (1 mark) and of reverse (1 mark).
- The candidate has shown evidence of central alignment of elements. They have shown effective use of image editing in the background. The level of skill applied is good throughout the majority of the layout and so, overall, the candidate has applied Design Elements and Principles with a good level of skill, providing some visual impact (2 marks)

Task 2b

The candidate was awarded **7 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).
- A range of materials or colours have been applied to STEP files and the dune digger toy, taking notice of specification list (1 mark).
- The material or colour choice are appropriate to create an effective scene (1 mark).
- The candidate has produced the two required views at a suitable size (1 mark).
- The candidate's application of appropriate lighting, highlights and shadows is good in rendered views. The zoomed-out view is saturated, but there is still enough evidence of appropriate shadows, highlights, and texture to award one of the 2 available marks (1 mark).
- The output quality of the render provides a good level of clarity with some pixelation or grain visible in rendered views (1 mark).

Task 3a

The candidate was awarded **3 marks:**

- The parts have been sketched in proportion to each other and correctly aligned (1 mark).
- They have sketched an accurate representation of the cuboid and sphere (1 mark) however, they have not sketched an accurate representation of the central cut cylinder, as the bottom edge is heavily skewed and is more or less a straight line rather than a curved edge (0 marks).
- The candidate has sketched an accurate representation of the feet (1 mark).

Task 3b

The candidate was awarded **2 marks:**

- The views have been sketched proportionally to each other and they are correctly projected (1 mark).
- They have not sketched an accurate representation of the cut cylinder and octagon across three view and the end elevation is not accurate (1 mark).
- They have sketched an accurate representation of the central cylinder and feet across three views (1 mark) and have included correct centre lines across three views, but these do not extend to the full height of the cylinder (0 marks).

Candidate 8

This candidate has achieved **35/50 marks**.

Task 1a (i)

The candidate was awarded **3 marks:**

- They have produced the three related orthographic views as requested in the task, and in the orientation as shown on data sheet 2 (1 mark).
- They have created the correct stepped cutting plane as shown on data sheet 2, however the thick ends do not extend beyond the views (0 marks).
- They have modelled the top and bottom halves of the cab correctly in all instances (2 marks).

Task 1a (ii)

The candidate was awarded **1 mark:**

- They did not present the drawing in the correct orientation in relation to the end elevation as displayed on data sheet 2 (0 marks).
- The model of the bucket was created correctly in all instances (1 mark).

Task 1a (iii)

The candidate was awarded **3 marks** because they have included accurate hidden detail for the views as they have created them (1 mark). They have applied appropriate use of scale for the views created in Task 1a (i) and (ii) (1 mark) and have included all key dimensions to allow for manufacture (1 mark).

Task 1b

The candidate was awarded **4 marks:**

- Despite one minor error in modelling the depth of the hole on the wheel, they have accurately modelled the wheel (1 mark) and the hook (1 mark).
- They have not correctly positioned the cutting planes as displayed on data sheet 1 (0 marks).
- The enlargement view shows correct assembly of wheel and cab (1 mark).
- The enlargement view showing cab and hook assembly does not show how they are assembled as no hidden detail has been included (0 marks).

- The candidate has correctly displayed the 45° angle in the enlargement view (1 mark).

Task 1c

The candidate was awarded **2 marks:**

- They have produced an exploded view (1 mark).
- All components are correctly aligned on the correct axes, and in the correct order (1 mark).
- The wheel components do overlap (0 marks).

Task 1d

The candidate was awarded **2 marks:**

- They have included linear, radial and diameter dimension types (1 mark).
- The template included has a suitable title for the drawings, the date, a scale, and a 3rd angle projection symbol (please see course report for session 2021-22 for accurate 3rd angle projection symbol standards) (1 mark).
- The section and detail views have not been labelled correctly (0 marks).

Task 2a

The candidate was awarded **5 marks:**

- The layout has not been created to the sizes stipulated in the brief (0 marks). They have included all necessary graphic and textual information stipulated in the brief. They have included the company name or logo, a minimum of one approved font, the approved colour(s) and three or more given images (1 mark). They have used the header as the headline (0 marks).
- Emphasis has been identified, and a justification referring to the use of reverse is valid (1 mark).
- All three DTP technique have been correctly labelled (1 mark).
- The candidate has made effective use of flow text along a path (1 mark).
- The candidate has not made effective use of transparency (0 marks).
- The candidate has made effective use of reverse (1 mark).
- Overall, the candidate has made basic use of DTP principles and elements, providing no visual impact throughout the layout (0 mark).

Task 2b

The candidate was awarded **8 marks:**

- The launch pad and moon textures have been correctly applied to the designated surfaces (1 mark).
- The dune digger toy and all STEP files have been included in the scene, are placed in correct position, and are suitably scaled relative to each other. The dune digger toy and STEP files are sited on surfaces and not floating or sinking (1 mark).
- A range of materials or colours have been applied to STEP files and the dune digger toy (applied on close up view), taking notice of specification list (1 mark). The material or colour choice are appropriate to create an effective scene (1 mark).

- The candidate has produced the two required views at a suitable size (1 mark).
- The candidate's skilled application of appropriate lighting, highlights and shadows creates effective rendered views (2 marks).
- The output quality of the render provides a good level of clarity with some pixelation visible in the rendered views (1 mark).

Task 3a

The candidate was awarded **4 marks:**

- The parts have been sketched in proportion to each other and correctly aligned (1 mark).
- They have sketched an accurate representation of the cuboid and sphere (1 mark) and an accurate representation of the central cut cylinder (1 mark).
- The candidate has also sketched an accurate representation of the feet (1 mark).

Task 3b

The candidate was awarded **3 marks:**

- The views have not been sketched proportionally to each other, although they are correctly projected (0 marks).
- The follow-on rule has been applied to allow the candidate to access the remaining marks. They have sketched an accurate representation of the cut cylinder and octagon across three views (1 mark) and an accurate representation of the central cylinder and feet across three views (1 mark).
- The candidate has included correct centre lines across three views (1 mark).