CDT: DESIGN AND COMMUNICATION

General Comments

Centres are to be congratulated on their preparation of candidates for the examination. It was evident from the responses that Centres had covered the syllabus content and that candidates were able to demonstrate their knowledge and understanding of this under examination conditions.

Candidates were required to answer **Question 1** or **2** and any two **Questions** from **3, 4, 5** and **6**. **Question 1** proved to be more popular than **Question 2**. **Questions 5** and **6** were the most popular choices from the optional questions. There was no evidence to suggest that candidates had insufficient time to answer three questions.

The overall performance of candidates was very pleasing and some excellent responses were seen to all six questions. The paper appeared to provide good access to candidates of all abilities, resulting in a wide range of total marks up to 99/100.

A small number of candidates made rubric errors, answering both **Questions 1** and **2** or attempting all 6 questions. It would be helpful if all Centres made the instructions clear to candidates.

It is not necessary for Centres to tie scripts with string or staple them together as candidates are required to write their details on each sheet of paper.

Comments on specific questions

Section 1

Question 1

This was a popular question and a good range of responses were seen to all parts.

(a) It was evident from the responses that candidates were familiar with working in first and third angle projection. In most cases the basic shape of the bungalow was completed to a good standard but the porch, chimney, windows and door were often added less successfully. A number of candidates confused the vertical lines for the door with those for the porch.

(b) Most candidates scored some marks for the front elevation and the two ends (although the ends were not always correct to the overlay). The two roof panels and the back were usually drawn but not always of the correct size. Glue tabs were usually added correctly. Very few candidates scored marks for the slots.

(c) Responses to this question were excellent and many candidates scored 3 marks for sketching the correct development (net).

(d) Responses to this question were generally very good, but common errors were not to add the tabs to the uprights or to miss out the base and glue tab.

Question 2

This question was less popular than question 1, but responses showed a good degree of differentiation.

(a)   The body of the lorry was generally drawn to a good standard with most candidates using the vanishing points correctly. The rear wheel proved to be challenging and few candidates gained full marks for this feature. The colouring was very variable, with some candidates making little attempt to include shade or tone.

(b)   In **part (i)** most candidates were able to draw a wheel against the side of the lorry although some failed to add the depth of the wheel correctly. The quality of construction was very variable. **Part (ii)** proved to be more difficult with few candidates correctly drawing the exploded view. Spacing the rear wheel away from the body of the lorry, with the axle showing, appeared to be beyond many candidates.

(c)   The side window was generally completed to a good standard. The majority of candidates only scored 1 mark for the windscreen because the length was incorrect. The name sticker was usually attempted, with a wide range of responses.

Section 2

Question 3

This was not a popular question.

(a)   Very few fully correct answers were seen to this part of the question. Common errors were failing to use the correct size acrylic strip, drawing a design that would allow the coin to roll out of the side or drawing a design where the coin just 'dropped' rather than rolling from side to side.

(b)   Responses to this question were generally poor and although most candidates drew a mechanism very few indicated the working features adequately.

(c)   A good range of design ideas, using words and images, were seen, although few candidates used notes to develop or explain their ideas.

(d)   Many candidates drew their chosen idea to a good standard, although they often failed to use colour to enhance their illustration. A small number of excellent answers were seen to this question.

Question 4

This was the least popular question on the paper, although a small number of responses were seen that scored maximum marks.

(a)   Most candidates appeared to have an understanding of oblique. Many correct answers were seen to the first block but the 'inner block' was usually missing from the second block.

(b)   Candidate responses were generally disappointing in terms of shape and size. A significant number of candidates did not complete their drawing of the blocks. Many solutions would simply not slot together.

(c)   Most candidates selected an appropriate colour for their rendering but few included high quality 'grain'. A small number of outstanding answers were seen.

Question 5

This was a popular question and many excellent answers were seen.

(a)   The cup was often drawn accurately with the Centres of the curves clearly visible. The handle was usually attempted but often with some curves out of tolerance.

(b)   The hexagon was often drawn inside the circle rather than outside and the handle was sometimes on a corner rather than the face. A small number of candidates drew an octagon rather than a hexagon.

(c)   A number of very good responses were seen to this question. Some candidates failed to draw a pictorial view of the box and a number of other shapes were seen (rectangles or pentagons). Very few candidates added the inside edges of the open box.

(d)   Many candidates were able to construct an ellipse and overall the responses were pleasing. A small number of candidates drew an ellipse of the wrong size and a large number the correct size ellipse in the wrong orientation.

Question 6

This was the most popular question on the paper and many excellent answers were seen.

(a)   Many candidates drew an accurate pie chart that included colour and labels (scoring full marks). A small number of candidates divided up the circle incorrectly.

(b)   Many candidates produced excellent answers to this question. Most candidates scored 4 or 5 marks. A small number of candidates used an appropriate method (bar chart) but the wrong data.

(c)   Many candidates did not fully understand the requirements of this question and failed to include a three dimensional impression of the toys in their ideas or final illustration. Responses to **part (i)** were disappointing. Few candidates used notes or sketches to accurately represent the toys. Responses to **part (ii)** were generally of a high standard although many candidates failed to represent the toys in their illustrations. A number of outstanding illustrations were seen.

CDT: DESIGN AND COMMUNICATION

General comments

Many candidates should be congratulated on the clear presentation of their design folders and this reflects the gradual improvement over time. However, as was reported last year, some candidates still tend to spend too much time on the Research and Analysis section at the expense of other considerations. The mark allocation in the assessment criteria should give some indication of the amount of time to be given to each section of the Project.

Comments on specific assessment headings

Problem Identification

Candidates had obviously been able to select a design problem, from those offered in the question paper, that was of interest to them. This is the stage at which the intention of the project is identified and set out clearly and many candidates gained full marks for this.

Research and Analysis

This section provides candidates with the opportunity to consider all aspects of the design problem and to gather relevant information. Most candidates looked in a sensible way at existing situations or solutions so that they could draw on this experience when formulating their own solutions to the design problem. Candidates should be encouraged to ask themselves the question: 'What do I need to know?' and then go on to seek this information.

Again, as has been reported in previous years, many candidates gathered information on materials, constructions and other aspects, often taken directly from textbooks, that had no relevance to this stage of a design process. This approach simply wastes time and cannot be awarded marks.

Specification for a Possible Solution

The Specification is awarded 10% of the total marks available and, as such, should not be considered lightly. Successful candidates drew on the results of their research and analysis to formulate a list of specific requirements for their design solution. A meaningful Specification can then form a useful tool for the evaluation of the final outcome.

Proposals for a Solution

This is the opportunity for candidates to be really creative and to record and consider a whole range of different approaches to the solution of their design problem. Successful candidates did not become too tied down by one basic idea but communicated a range, however appropriate they were at the time.

It is important that candidates annotate design drawings and record their thoughts on each idea for possible subsequent development. It is these notes that indicate to the reader how the candidate's ideas have been formulated.

Many candidates should be congratulated on the high quality of communication skills in this section of their design folders.

Realisation

Photographic evidence only of design solutions was seen by the Moderator so it is difficult to comment in detail about made products. However, work appeared to cover the intended range of appropriate materials and many artefacts were finished to a very high standard.

Evaluation

There has, generally, been an improvement to this section of the design process and many folders gave the feeling that candidates had carried out meaningful testing of their product solutions and considered them against the original specification.

Although some candidates are still using ticked boxes against specification points, many others gave sound objective comment to indicate the success, or failure, of their solution. As a result of this objective testing recommendations for improvement and modification could then be made.