



General Certificate of Secondary Education

**Design and Technology
(Graphic Products)**

3543

Full Course

Foundation Tier Written Paper

3543/F

Report on the Examination

2007 examination - June series

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General

- The paper was well received with no major problems regarding carrying design specification and generation of ideas over a number of question sheets.
- The slight change in format did not present any discernable problems. Future written paper will continue to follow the basic structure of a 'mini-project' but the positioning of a certain type of question may alter as the demands of the contexts and themes change.
- This year much attention was placed on justified reasoning; candidates were asked to explain the reasons for their choices. Many responses did not address this requirement and so full credit was seldom awarded.
- The Preparation Sheet had been used as intended and this benefited the majority of candidates. However, some candidates appeared to have only superficially studied the topics and did not investigate them fully within the context of the examination.
- Centres generally prepared candidates well for the designing questions and the quality of such work continues to impress the examiners. There were many excellent examples of generation of ideas and presentation drawings on the paper.
- One-word answers were rare in written responses but adequate when applied to a given table or chart.

Question 1 – Marketing and Product Analysis

A well attempted question with the vast majority of candidates scoring over half marks. Nearly all candidates were familiar with the function symbols, but few understood 'aesthetic features' often confusing it with the functional aspects of the phone and providing **incorrect** answers such as 'large screen', 'flip phone' or 'slide phone' etc. Some candidates repeated one aesthetic feature for all types of phone rather than identify a specific quality of each. Marks were awarded accordingly. Candidates were a little more successful with the 'typical user/buyer', but again general terms such as 'old or young people' and 'the disabled' were not sufficient to warrant full credit.

Question 2 – Modelling Materials and Computer Aided Design

This was moderately well done by most candidates and many candidates received over half marks.

- (a) Modelling materials seemed to be misunderstood. Some candidates demonstrated little knowledge of thermoplastics and a sizable minority offered propane, polythene or Styrofoam.

- (b) The rendering of the outline drawing of a mobile phone was either well done by the whole centres' entry or completely ignored. Thus it would appear to be taught in some centres but not in others. Some candidates ignored the position of the light source and merely attempted a 3-D rendering techniques of their own choice. For full marks the rendering had to be compatible with the light source and show relief about the surface features.
- (c) The meaning and use of the icons was generally well answered, although sometimes the explanation of the uses was a little too vague for full credit to be awarded. The icon which presented the most confusion was the 'fill' symbol which was thought by many to be a 'paint' or 'colouring' option. Nearly all candidates used the sketching space and attempted their own 'print' symbol in the style of the given icons

Question 3 – Letter Styles

A popular question with many high scores, the designing parts were usually better answered than the factual and reasoned sections.

- (a) Very few candidates were able to give a correct and clear definition of the term 'font'. Many acknowledge that it was related to different letter styles, but few linked it to specifically computer generated text.
- (b) Letter styles appeared to have been 'taught' with nearly all candidates attempting this, with varying degrees of success. When attempted, nearly all provided three different styles for the character S. Examples were printed on the Preparation Sheet and candidates had obviously practiced their own interpretation. A small minority insisted on single line lettering which limited the quality and style marks.
- (c) When asked to evaluate their preferred letter style too many responses were generally descriptive and lacked justified reasoning which would have opened up the higher range of marks.

Question 4 – Development of Ideas

This question was generally well done and was aimed at exploring the candidates' ability to generate and develop ideas, a skill central to the activity of designing. In this instance most scored well when required to produce different ideas but poorly when developing their chosen image.

- (a) (i) The vast majority of candidates provided at least three discrete images on the theme of emergency use. If an emergency could be deduced from an image, marks were awarded. A few candidates concentrated on the word 'emergency' in different letter styles which was insufficient to access full marks.
- (ii) Colour was usually well indicated, in some cases by full colour drawings but in some, by labels. Both were acceptable.
- (iii) Annotation was a weakness with many descriptions offered rather than justified reasoning.

- (b) (i) Almost all candidates successfully transferred an idea from part (a). It was very rare to be presented with a totally new image. Unfortunately hardly any candidates developed this initial idea. The overwhelming majority reproduced the favoured design and added very minor modifications rather than show a sequence of incremental improvements. Thus many marks were missed.
- (ii) Again, this was poorly done with few full critical evaluations of the changes. Most candidates were content to give basic descriptions of what was evidenced in their sketches.

Question 5 – Layout and Presentation Drawing

Generally a well attempted question with many marks in the mid to high range.

- (a) This was well done with many candidates understanding the need for organising the layout of the specification components on the box lid. Thumb nail sketches or simple 'box layouts' were sufficient. Unfortunately some students misunderstood the need for all three specification features to be placed in each of the three box lid outlines. Candidates often failed to label the specification features. A small number were content to sketch one feature in one lid outline. Marks were awarded as appropriate.
- (b) (i) Line quality was generally good, neat and sharp pencil work was evident. All candidates respected the given outline as the top of the box and did not attempt to draw another box inside it.
- (ii) The quality of colouring varied greatly. The use of 'felt tip' pens was pleasingly scarce. Sometimes the effectiveness of the colour work was marred by poor layouts.
- (iii) Most transferred one of the layout formats from part (a) on to the given outline. The quality of positioning varied and the most common error was in not planning the text before darkening it in. The result was often compressed and squashed lettering.
- (c) When attempted, all candidates identified a feature they thought would improve the overall lid design. Position, colour, letter style and their emergency image were popular items for change. Some even suggested that the AQA logo needed improvement. Unfortunately few offered reasoned justifications for their choice and relied on superficial comments e.g. it does not stand out – without informing the examiner why it does not stand out and how that could be remedied.

Question 6 – Materials, Surface Developments (Nets) and British Standard Conventions.

This question was not well done. Many attempts were unsuccessful because of a lack of specific knowledge. The examiners report a similar pattern to some other questions, certain centres scored well and others did not, thus reflecting the emphasis placed on delivering these parts of the subject specification.

- (a) The graphic representation of expanded polystyrene was not well known with only a few candidates correctly drawing the 'beads'. Some applied their answer to the wrong diagram, and these were viewed sympathetically
- (b) The advantages and disadvantages of expanded polystyrene as a packing material was very poor. Some answers relied on its general appearance and texture without addressing the context of the question. Few candidates referred to its lightweight, shock absorbent, cushioning properties, or the environmental concerns of disposal and as a non sustainable resource.
- (c) The surface development (net) was also poorly done with many candidates not fully understanding the requirements of the question. There were very few correct drawings of this straightforward rectangular 'box' surface development, and even fewer with the 'cut out' window in the right position. This aspect of the Specification appears to have been neglected despite an almost identical solution being shown on the Preparation Sheet. Incorrect drawings could still gain some credit for line quality and use of the 'key'. Some candidates appeared to have lost their way when using the scale to convert the given sizes. This also indicates that this part of the specification is not being fully covered.
 - (i) British Standard conventions continue to bewilder nearly all candidates. With the most rudimentary rules being ignored or not taught. This type of question has been in all Written Paper over many years with, unfortunately, similar results.
 - (ii) Again, few candidates completed the scale correctly. 2:1 was a popular error when attempted.

Question 7- Packaging, its materials and components

Another question which was well answered by some candidates and not by others. Most candidates picked up marks on the later parts where they had some personal experience of this type of display package.

- (a) (i) It was very surprising that the majority of candidates did not know that blister pack was the name given to this type of package. Too many candidates wrongly stated that it was 'vacuum forming' or 'vacuum pack'.
 - (ii) Most successfully attempted this question and nearly all referred to the transparent qualities of the packaging materials. '...can see what they are buying' was a popular answer.
 - (iii) A large number of candidates misread this question and thought it meant environmentally friendly as opposed to environmentally unfriendly. There were many good answers to the wrong question. However, candidates demonstrated a good knowledge of some environmental issues.
- (b) A popular and well answered question. The sketches and notes were usually adequate to communicate the basic principles of the chosen method. Some candidates offered several methods and their best method scored appropriate marks. The better responses used exploded drawings to illustrate how the two parts of the package could be securely held together. Bent over edges,

staples and glue were the main methods shown. When solutions strayed outside the context of a centre's Design and Technology department, such as with the plastic formed with 'press stud' type 'poppers', then candidates were rewarded sympathetically.

Question 8 – Cultural, Social and Environmental Issues

This question, when attempted, enabled most candidates to gain credit although there were few with maximum marks. Again, the biggest fault was not answering within the context of the question.

- (a) A well attempted question with the majority of candidates gaining near maximum marks for this section. Most had some understanding of the given symbols but were often unable to provide a clear, reasoned environmental reason for using the symbol within the context of the disposal of batteries. A few answered in general terms for example the flame suggested to some that fires were not to be lit when in the countryside. Marks were awarded as appropriate to the demands of the question.
- (b) This part was usually well answered.
 - (i) Candidates demonstrated a good knowledge of the European Eco-Label. The E sign and the stars were almost universally associated with Europe.
 - (ii) The appropriateness of the colours was slightly more problematic. The blue stars were recognised as being a feature on the European Union flag but green was also thought to be part of the that flag instead of being connected to 'green' environmental issues.
- (b) This section was attempted with varying degrees of success. Whilst most candidates attempted the three parts, few gave sufficient detail for maximum marks to be awarded.
 - (i) Most candidates gave many and varied perceived advantages for using signs, symbols and pictograms instead of written information. The most popular referred to the speed of reading and space saving benefits. More advanced reasoning accepted them as a universal language with an international role but such thoughts were rare.
 - (ii) The CE sign was recognised as a 'European' symbol but many thought it indicated 'made in Europe' or permission to sell in Europe, rather than a safety standard indicator. Likewise, many candidates named the 'kite' mark. Some knew it was a British mark but again few stated that it was a safety symbol.

Mark Ranges and Award of Grades

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