

Arkwright Examiners' Report for the Aptitude Paper sat on Wednesday 6th February 2008

All three questions proved to be popular this year.

**The Examiners are looking for quality not quantity.
Candidates should be discouraged from producing too
many pages, a maximum of 4 A3 sheets is expected.**

Specifications

This section continues to be well answered by a majority of candidates. Good candidates covered materials and ergonomics as well as function and produced well justified specifications. This area is worth 15 marks and a weak specification ie, **one lacking qualifying reasons**, can disadvantage candidates throughout the whole paper.

Design Ideas

Only the best candidates produced a wide range of possible solutions. They developed and described ideas and their thought processes were evident from supporting annotation. A greater variety of concepts is encouraged generally in order to maximise marks in this section. Many candidates failed to produce evaluative comments to their ideas. Comments should refer to specification points.

It is at this stage that flair in a wide range of solutions is being looked for by the examiners.

Final Solution

This should stand out from the initial ideas and deal with the key issues outlined in the mark scheme. There were some excellent responses where candidates brought ideas together to produce a well thought out final solution. A large number of candidates failed to include possible dimensions. The weaker responses failed to include important details e.g. materials, construction, features and tended to reproduce a sketch from the ideas. Candidates should not re-draw views previously offered, but present new elevations and extended details in this section

The strongest scripts showed evidence of cross referencing the developed idea with the identified needs of the product as set out in the specification.

Communication

It is possible to gain full marks for communication by producing a range of 2D and 3D drawings. Annotation is essential and should link back to the specification and should not be only descriptive.

There is no requirement to use colour but its use can enhance the overall quality of the answer.

Q1 . Panic Alarm

The successful candidates demonstrated flair by producing a wide range of ideas that understood what was required from the technology. Contemporary solutions that incorporated the technology with garment and mobile telephone attachments impressed the judging panel. Belt attachments and simple boxes were, by comparison, rather predictable solutions.

Q2 . Moving Sculpture

This was a popular question with some imaginative and well considered solutions. The best solutions captured the spirit of the Olympic movement producing designs for sculptures that were truly elegant. An incorrect or poor choice of Olympics activity limited the scope for successful solutions to be developed, as did a 3D mechanised puppet.

Q3 . Terrain Simulator

This was a challenging question that captured the imagination of many, allowing the candidates to demonstrate flair and technical ingenuity. Wide ranging solutions combined form and function in an attractive shop based simulator. However, a number of proposed designs were impractical in the context of a retail outlet.

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