

Principal Assessor Report 2004

Assessment Panel:

Technical Education

Qualification area

**Subject(s) and Level(s)
Included in this report**

Graphic Communication — Standard Grade

Statistical information: update

Number of entries in 2003 (Pre Appeal)	9944
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Number of entries in 2004 (Pre Appeal)	9755
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General comments re entry numbers

Numbers remain very healthy, even though there was a slight decrease this year.

This may be due to a smaller available cohort or the first sign of the impact caused by centres presenting Intermediate 2 instead of Standard Grade.

Statistical Information: Performance of candidates

Distribution of awards

Grade 1	17.3 %
Grade 2	28.8 %
Grade 3	21.8 %
Grade 4	16.9 %
Grade 5	9.3 %
Grade 6	3.0 %
Grade 7	0.2 %
Credit	46.1 %
General	38.7 %
Foundation	12.3 %

Comments on any significant changes in percentages or distribution of awards

These figures are very similar to last year.

There was a slight increase in candidates achieving Credit level for Illustration & Presentation, from 52.9 % to 54.3 %. This is probably due to the improved IT skills resulting in raised attainment in the four IT elements.

As a result of efforts to make the Knowledge & Interpretation questions more accessible, there was a 3 % increase in the number of candidates achieving grade 3 in this element.

Grade boundaries for each subject area included in the report

Standard Grade			
Assessable Element –		Knowledge & Interpretation	
Grade	Maximum Mark	Minimum Mark for Grade	% Mark
1	40	29	72.5
2	28	23	57.5
3	35	19	54.3
4	18	15	42.9
5	30	17	56.7
6	16	14	46.7

Standard Grade			
Assessable Element –		Drawing Abilities	
Grade	Maximum Mark	Minimum Mark for Grade	% Mark
1	70	46	65.7
2	45	32	45.7
3	60	39	65.0
4	38	27	45.0
5	50	23	46.0
6	22	12	24.0

Comments on grade boundaries for each subject area

Knowledge & Interpretation

The grade boundaries were slightly lower than last year to reflect a slightly more demanding exam, particularly at Credit and Foundation levels.

Drawing Abilities

Exactly the same as last year for a grade 2, but 3 marks lower for a grade 1 to reflect that the exam was slightly more demanding.

At General level the boundaries were 3-4 marks higher than last year, but were more in line with previous years. At Foundation level the boundaries were 4 marks lower for both grades, but again similar to previous years.

Comments on candidate performance

General comments

Overall performance was very similar to last year.

General/Credit candidates

Once again candidates appropriate to this level performed very well in the Credit paper, even though a wide range of knowledge was required. Most attempted every question in both their Credit and General papers. Candidates who passed the Credit DA performed extremely well in this element at General level. Once again it is clear that candidates are being well prepared for KI at this level.

There are still a small number of candidates being presented at this level who clearly should not be.

Foundation/General candidates

DA was very similar to previous years. Candidates handled the lack of sketching question better this year. Foundation candidates continue to find the jump to General level too difficult, with many not attempting questions.

General KI performance improved slightly at grade 3. Attempts to make the marks more accessible, has been successful. As with DA at this level the Foundation candidates find the step up very difficult.

Candidates who passed the General paper also performed very well at Foundation in both elements.

Foundation candidates perform much better in KI than they do in DA. DA continues to be too difficult for a large number of candidates.

Areas of external assessment in which candidates performed well

Credit paper

Question 1, interpretation, was the only KI question that was consistently answered well. The others had a range of responses.

Question 5, orthographic

As in previous years this was a good starting question as most candidates scored greater than half marks.

Question 7, isometric

This was probably the question done best, with some very high marks achieved.

Question 8, pyramid-true shape

Putting a true shape into Credit, instead of General resulted in almost everyone attempting it and answering it well for the first time.

General paper

True Credit candidates answered all the KI questions well.

Question 4 was the only KI question done well by a majority of candidates.

The majority of General/Credit candidates attempted all of the DA questions.

Question 5, orthographic

Answered very well by General/Credit candidates, but was also one of the few questions answered well by Foundation candidates.

Question 7, isometric

Very well answered, but very few candidates managed to position the shelf correctly.

Question 9, planometric

As in previous years this was done well, in particular the Credit and General candidates who mostly achieved close to full marks. A number of Foundation candidates also made a good attempt. This was therefore the best attempted question in the paper.

Foundation paper

Questions 2, 3 and 4 in the KI section were very well answered. This is consistent with previous years. The limited number of KI learning outcomes in this section mean that centres are able to prepare both Foundation and General candidates well.

As in previous years the General candidates found the DA straightforward and therefore performed very well in all questions.

Question 5,

This was very well done by all candidates and was therefore a good starting question.

Question 7, 2pt perspective

Attempted by most candidates. Most managed to draw in good perspective and proportion.

Areas of external assessment in which candidates had difficulty

Credit paper

Question 2, computer models

In many cases it was complete centres that did know the types of computer model. This has been asked before so it should be taught.

Question 4, IT

As with the Foundation paper many candidates gave commercial software names instead of the generic names, DTP, CAD or paint/draw.

Question 5, orthographic

Very few candidates could construct a correct hexagon in the plan.

Question 6, cylinder

The half cylinder confused many of the General candidates. Also the development of a cylinder continues to cause problems. Candidates do not use appropriate construction to find the length.

Question 8, hex. pyramid

Very few candidates could transfer the two mid points of the cut onto the plan. In addition very few got the correct width of the end elevation. This is lack of projection skill was also evident in the General paper.

Question 9, section

This was the poorest done sectional assembly for a number of years. Very few candidates drew the internal bosses, grommets or could section to correct BS conventions.

General paper

Question 1, Architectural drawings

Candidates still do not know the names of the basic types of plan used in the building industry, scales used nor are they able to recognise a 2-point perspective. Even though these same topics appear in the exam on a regular basis, they are still not being taught well.

Question 3, BS conventions

BS conventions are not being taught to the level of previous years. In particular the knowledge of line types was poor.

Question 4, BS symbols

Only a small number of candidates appear to know these symbols. These have also appeared in the exam on a regular basis, but are still causing problems for a large number of candidates, both Foundation and Credit.

As usual the majority of DA questions proved difficult for the Foundation candidates. Time was also a factor with many not attempting two questions. There were also a number of Foundation candidates who did not attempt any DA questions at all.

Question 5, orthographic

Done well but a large number of candidates did not show hidden detail.

Question 7, hex. prism-

The development was very poorly attempted by a large number of candidates. Transfer of heights was okay, but around 50% of candidates did not transfer the correct dimensions for six equal sides.

Question 8, triangular pyramid

Very poorly attempted by at least 90% of candidates. Very few were able to find the position of the apex in either the plan or end elevation and the majority did not get the correct size of the base in the end elevation. Even though this is a General level outcome, it caused as much difficulty for Credit candidates as it did for the others.

Foundation paper

Question 1, IT

A large number of candidates give a commercial package name instead of the generic name **CAD**. It would also appear that a large number of Foundation candidates do not know what a 'hard copy' is.

Question 6, orthographic

Most of the General candidates found this question straightforward, but very few Foundation candidates could do the development.

Question 8, oblique

The front face was drawn well but the majority could not draw the back curve or position the top button correctly.

Question 9, section

Very poorly done by candidates at both levels. Either no hatching was shown, incorrect BS convention or the elevation was just copied.

In addition very few candidates could dimension correctly to BS.

Recommendations

Feedback to centres

General feedback

- ◆ There continues to be a large number of high quality candidates.
- ◆ The standard of draughtsmanship is dropping. A large proportion of candidates at all levels do not distinguish between construction lines and outlines.
- ◆ As in previous sessions, centres are continuing to enter too many candidates for an inappropriate level resulting in too many Grade 7s being awarded. Some candidates could not even achieve 10% in either of their General of Credit papers.

Knowledge and Interpretation (KI)

KI is being done well at Credit and Foundation levels but not so at General level even though there was a slight improvement this year. Areas that are being poorly answered are:

- ◆ Knowledge of BS conventions. This is a problem at Standard Grade that continues into Higher. BS conventions and symbols always appear in the exam but as with draughtsmanship the candidate performance is getting poorer. To gain the marks candidates should use the correct BS terms for symbols, line types etc.
- ◆ For a number of years a lack of knowledge of building-drawing terms has been highlighted, but there still appears to be no improvement.
- ◆ When asked to state a software type, the generic name should be given: CAD, DTP, Paint/Draw, 3D Modelling, Word-processing, etc, not commercial names such as AutoCAD, Microsoft publisher, Word etc.
- ◆ Where required Credit candidates should give a description and not single words as answers.

Drawing Abilities (DA)

- ◆ Pictorial views are being well taught as most candidates are doing very well in them. One weakness is drawing curves/circles in oblique views.
- ◆ After an improvement last year, cylinders and assemblies were poorly done again.
- ◆ This year had a greater amount of geometric construction that proved to be difficult for candidates, even though it has always been part of the course.
- ◆ The basic skill of projection/transfer of widths from plans to end elevations is very poorly done.
- ◆ All three developments caused problems at every level.
- ◆ This was also one of the poorest years for candidate responses to sectional views.