



Course Report 2016

Subject	Graphic Communication
Level	Higher

The statistics used in this report have been compiled before the completion of any Post Results Services.

This report provides information on the performance of candidates which it is hoped will be useful to teachers, lecturers and assessors in their preparation of candidates for future assessment. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published assessment documents and marking instructions.

Section 1: Comments on the Assessment

Component 1: question paper

The examination component represented a good mix of questions covering the main elements from the Course Assessment Specification.

Areas assessed included:

- ◆ 3D CAD modelling techniques
- ◆ justification of graphics in specific contexts
- ◆ drawing standards, protocols and conventions in accordance with British Standards
- ◆ the use of digital technology in graphic communication
- ◆ spatial awareness and visual literacy relating to 2D, 3D and pictorial drawings and sketches
- ◆ desktop publishing (DTP) features
- ◆ design elements and principles in promotional graphics

The question paper was well received by candidates and performed well as a final assessment.

As a whole, candidates appear to have been well prepared for the Higher examination. The performance by candidates demonstrated that centres were covering most of the topic areas sufficiently.

A number of candidates are still answering describe/explain type questions with bulleted statements or single-word responses. Candidates must expand their responses in line with the command word to gain marks.

The lack of course knowledge and subject-specific language from some candidates suggested that they were presented at the wrong level.

Most candidates had a good lead into the paper with the CAD library question, giving good detailed responses. Most managed to describe the benefit of 3D modelling in advertising, but only a small number of candidates were able to describe the benefit to manufacturing.

Top-down modelling is still not fully understood by candidates. A large number were clearly unfamiliar with the term, and the candidates who did know what it was found it quite difficult to express themselves using clear and effective language.

The 2D CAD term 'offset' caused difficulty for many candidates.

Performance in the 3D modelling question was generally good. Candidates who chose to sketch and annotate their answers mostly performed better than those who chose to use extended writing. Many candidates did not use the correct terminology in relation to the CAD commands, but instead used commands relating to software packages. Candidates must use the terms in the Course Assessment Specification. In particular, candidates lost marks in question 1(e) for using incorrect terminology:

- ◆ The only acceptable terminology for extruding and removing material is 'extrude subtract', but instead candidates used 'extrude cut' or 'extrude remove'.
- ◆ The only acceptable terminology for an array around a circle is 'radial array'; 'circular array' and 'circular pattern' are not acceptable terms.
- ◆ There was also evidence of candidates not referring fully to the dimensions given. This is critical to any 3D modelling process and again candidates lost marks if they did so.

The two British Standards (BS) conventions for screw threads, and a flat on a shaft, were reasonably well attempted by candidates — a much better performance than last year. The tangency calculations were well attempted by the majority of candidates.

The desktop publishing features, elements and principles questions were tackled well as a whole. The areas that caused most difficulty for candidates were typeface, proportion and text justification. The proportion question was poorly attempted in the 2015 examination, and it would appear that this design principle is still not fully understood by candidates.

The architectural questions relating to site plans, location plans and pictorial renderings were well answered by the majority of candidates.

The use of digital technology in graphic communication was answered well. Candidates had a good grasp of digital scanning, JPEG and vector file formats and the advantages of digital sketching.

The stepped sectional view was tackled well by the majority of candidates. There was a good understanding of hatching and how to apply it to different materials. The sketching quality as a whole was of a good standard.

The BS location plan was well answered, but the BS symbols were poorly answered. Candidates were not using the correct name for the symbols from the *SQA Standards and conventions information for candidates*.

Component 2: assignment

The verification team identified many centres where candidates were producing high quality work across the assignment.

Based on previous years' experience, the assignment performed as expected, although there was evidence of centres being generous in their marking.

Where generous marking was identified it tended to be across the preliminary and CAD production sections of the assignment. This was usually towards the top end of the marks range, ie where the marking instructions had been misinterpreted then there was a migration towards 'A' type marks — high 60's to the maximum of 70 marks.

Section 2: Comments on candidate performance

Areas in which candidates performed well

Component 1: question paper

Question 1 (a) Most candidates could describe at least one of the two benefits of using a CAD library. A number of candidates responded with the terms 'faster, quicker' without justifying why.

Question 1 (b) (i) Most candidates articulated a clear answer for 3D CAD in advertising.

Question 1 (g) (i) and (ii) Most candidates made a good attempt at the tangency addition and subtraction questions.

Question 1 (h) Most candidates managed to answer this question well. A few misinterpreted the question, which said *Describe the 3D CAD modelling **technique** used to create the part model of the neck shown above* and used extrude then a loft rather than lofting the three profiles as one **technique**. Most candidates still scored two marks out of the three for describing the profiles and workplanes.

Question 2 (a) (ii) Most candidates gave clear answers relating to the use of colour in desktop publishing.

Question 2 (c) Most candidates displayed a good understanding of the desktop publishing term 'depth'.

Question 2 (d) Most candidates displayed a good understanding of the desktop publishing term 'line'.

Question 2 (h) (i) Most candidates displayed a good understanding of the use of crop marks and bleed in desktop publishing.

Question 3 (b) Most candidates showed a good knowledge of CAD rendering and how it would be used in an architectural context.

Question 3(c) (i) Most candidates showed a good knowledge of the use of a digital scanner to convert a manual graphic into a digital image for a website. Candidates lost marks in this question for simply stating 'scanner', 'hand scanner' or 'digital scanner'. The question clearly asked **Describe** *how the manual sketches can be converted to digital images for use on the website*.

Question 3(c) (i) Most candidates showed a good knowledge of the use of the JPEG file format and its suitability for applications.

Question 5(b) Most candidates scored very well using visual literacy to interpret information from the CAD site plan.

Component 2: assignment

The verification team identified that many centres where candidates were producing high quality CAD production and desktop publishing components in the assignment.

Candidates performed well in the creation of 3D CAD models and applied the more complex modelling techniques required by the course.

Areas which candidates found demanding

Component 1: question paper

Question 1 (c) Some candidates had difficulty describing top-down modelling. They knew what it was but could not fully describe the process. Some of the candidates used the guitar to describe the process and some used a generic description of top-down modelling. Either was acceptable as the question was specifically worded to allow them to do so.

Question 1 (d) (i) and (ii) A number of candidates did not know the 2D CAD term 'offset'. Some managed to pick up a mark in part (ii) by describing the use of the tool using sketches or a written response.

Question 2 (a) (iii) Some candidates had difficulty with the typeface desktop publishing question. The majority of candidates who performed poorly in this question lost marks for not mentioning 'serif', 'sans serif' and 'script' fonts in their response.

Question 2 (b) Some candidates had difficulty with the proportion desktop publishing question. It was clear that candidates are not understanding what proportion is and the effect the design principle has on a document.

Question 2 (g) (i) and (ii) Some candidates did not know the meaning of the desktop publishing term 'justification', often confusing it with the design principle alignment.

Question 2 (h) (ii) A number of candidates did not know what registration marks were. Most made reference to desktop inkjet or laser printers and not to offset litho printing.

Question 5 (c) Most candidates could identify at least two of the BS symbols but gave an inaccurate name for them. Candidates must use the correct terminology from the *SQA Standards and conventions information for candidates*.

Component 2: assignment

There was evidence of preliminary graphics not being completed to a good standard, and it was disappointing to see some centres are still awarding marks where retrospective planning work (such as tracing of CAD drawings) is evident. Centres are reminded that retrospective planning and tracing is not permitted for any course assignment, at any level, and cannot be awarded any marks.

Some candidates did not produce three different CAD modelling techniques. Centres are reminded that not all three techniques are required in the model — some can appear in the

scene. In addition, some candidates whilst producing the three techniques did not do so at a level appropriate to Higher. There were still some instances of a candidate producing a 'block' type model for the reception desk, then being awarded high to full marks for CAD modelling.

A number of candidates had not rendered work at an appropriate resolution. This made work pixelated and diminished the quality of the material produced.

Section 3: Advice for the preparation of future candidates

Component 1: question paper

In preparation for next year's examination, centres are advised to encourage candidates to support their answers with sketches, where appropriate. It was evident that candidates who attempted questions with extended text sometimes did not fully articulate their answer. This was clearly evident in the 3D modelling questions. All sketches can be constructed in pencil, but any final sketch to support a response should be in blue or black ink.

Candidates should ensure that, when using additional space at the rear of the question paper to continue their response, their response is clearly indicated and identified.

The correct terms from the Course Assessment Specification must be used at all times in the examination. This is of particular importance when responding to questions on 2D and 3D CAD and BS protocols and conventions. No marks are awarded for generic terms or terms that are specific to software packages.

Candidates must be aware of the meaning of the command words in questions. Only when 'state' is used is it acceptable to write bullet point type answers or short answers. The terms 'describe' and 'explain' require extended answers.

Component 2: Assignment

Centres should be mindful of the assessment conditions set out in the Course Assessment Specification (CAS):

The assignment will be carried out under open book conditions, but supervised to ensure that the work presented is the candidates own work.

Whilst the assessor may give candidates support and guidance, where any significant amount of support is provided, this should be reflected in the marks awarded. The candidate may be provided with feedback to help them progress to the next stage of the assignment.

The assignment is designed to discriminate between candidates, and therefore would be expected to provide a wide range of marks across a class group. Stronger candidates should be able to complete the assignment successfully with minimal support and guidance.

Weaker candidates may not be able to complete all aspects of the assignment within a reasonable time, or may require significant assistance, and so would achieve a lower mark.

Once the assignment has been completed and assessed, it cannot be returned to the candidate for further work to improve their mark.

Grade Boundary and Statistical information:

Statistical information: update on Courses

Number of resulted entries in 2015	3948
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Number of resulted entries in 2016	4611
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Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark -				
A	13.6%	13.6%	628	102
B	27.9%	41.5%	1285	88
C	28.6%	70.1%	1321	74
D	11.3%	81.4%	519	67
No award	18.6%	-	858	0

Decision Making Record Statement:

The overall demand of the course assessment was lower than intended and so all grade boundaries were set higher than intended

General commentary on grade boundaries

- ◆ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- ◆ Each year, SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.
- ◆ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ Where standards are comparable to previous years, similar grade boundaries are maintained.
- ◆ An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in, say, Higher Chemistry, this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related, as they do not contain identical questions.
- ◆ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.