Course Report 2015

Subject	Graphic Communication
Level	Higher

Section 1: Comments on the Assessment

Component 1: Question paper

The examination for the new Higher in Graphic Communication 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 features (DTP)
- design elements and principles in promotional graphics

The question paper represented a new approach to assessment in the subject. No drawing or sketching was assessed in the question paper (it had been with the previous Higher). Many of the topics had not previously appeared at this level in Graphic Communication. The topics that were completely new for the Course, as a whole, were the best answered questions in the paper. The topics that were in the previous Higher were not answered as well as expected, particularly the BS symbols, standards and conventions. This year a minor adjustment of the marks was made to the grade boundary to take account of this.

Component 2: Assignment

The assignment is worth 70 marks and represents 50% of the candidate Course award. Similar to National 5, SQA provides three briefs for candidates to choose from, and they follow the same structure and nature. In the Higher briefs, candidates are provided with more detailed information and some electronic files that must be used within their response.

The verification team saw less variety in approaches than was expected. All verified centres kept within the 10 page limit.

Section 2: Comments on candidate performance

Component 1: Question paper

Centres have embraced the changes in the subject area and as a whole candidates appear to have been well prepared for the new Higher examination. The performance by candidates demonstrated that centres were covering most of the topic areas in sufficient depth in preparation for the question paper.

Performance in the 3D modelling questions was generally very good. Candidates who chose to sketch and annotate their answers mostly performed better than those who chose to use extended writing. Some 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. There was also evidence of candidates not referring fully to the dimensions given. This is critical to any 3D modelling process.

Most candidates performed well in the 3P's question, showing good knowledge of preliminary, production and promotional drawings. Some candidates lost marks by making generic statements as to what the 3P's were and did not relate it to the images shown in the question.

Candidates demonstrated a good knowledge of scale drawing and sectional views.

Candidates generally performed well in the digital versus hardcopy question. Some candidates made generic statements about the advantages or disadvantages of digital/hardcopy and did not relate them to the consumer, advertiser or distribution as was asked in the questions. Some candidates gave answers that cannot be quantified, eg Digital copies are cheaper, faster to produce.

Performance in the British Standards type questions was varied. Some candidates performed very well but some performed poorly. Centres are reminded that in addition the new topics, BS conventions, protocols and standards topics are part of the new Higher Course.

Candidates as a whole performed very well in the DTP questions. They displayed a good knowledge of terminology, elements and principles. The terms that proved most challenging for some candidates were Proportion and Alignment in DTP.

Candidates must read the command words in the question carefully. Some candidates answered explain, describe and justify type questions with bullet point type answers or simple stated facts with no extended description, justification or explanation. Centres are reminded to reinforce the importance of command words and to ensure candidates use extended answers when asked for them.

Component 2: Assignment

The verification team reported that marks were typically lost within the preliminary graphics section and the creation of production drawings.

Whilst some candidates had embraced the opportunity to be creative, the format and layout of submissions were often similar in style to the exemplar.

Centres are encouraged to allow candidates to respond to the task in their own way, building upon the teaching and learning delivered during the Course.

Section 3: Areas in which candidates performed well

Component 1: Question paper

Question 1(b) Most candidates demonstrated a good knowledge of the sweep command and described the path with dimensions.

Question 1(c) Most candidates demonstrated a good knowledge of either the revolve or the loft commands and the related dimensions to produce the nozzle. Some candidates did not identify and calculate the diameter 53mm needed for the step down in size at the large end of the nozzle.

Question 1(d) This was the best answered of all the 3D modelling questions. There was good use of sketching and annotation by the majority of candidates.

Question 2(a) Most candidates had a good knowledge of the 3P's and could relate it to the context of the building.

Question 2(b) The question on factors that influence scale was very well attempted.

Question 2(c) The majority of candidates demonstrated a good knowledge of the benefits of hatching in a drawing. Many candidates provided more benefits than the two required, demonstrating firm knowledge of sectional views.

Questions 3(a), (b) and (c) Candidates demonstrated a good knowledge of the advantages/disadvantages of digital formats for the consumer, advertising agency and for distribution.

Questions 4(a),(b),(c),(f),(g) and (h) Candidates demonstrated a good knowledge of scale, tolerances and how to apply them, linear dimensioning and types of sectional views.

Questions 5 (a),(b)i and (c) Most candidates demonstrated a good knowledge of contrast, unity and shape in the promotional items.

Questions 6(a),(b),(d),(e) The majority of candidates demonstrated a good knowledge of colour, alignment, texture and emphasis.

Component 2: Assignment

Candidates performed very well in the creation of 3D CAD models and using the more complex modelling techniques required by the Course. Similar to National 5, the production drawings created from these 3D models contained a range of mistakes, most likely due to poor software set-up and candidates not knowing how to change the settings accordingly. This is something that centres may wish to consider in future delivery.

Section 4: Areas which candidates found demanding

Component 1: Question paper

Question1 (a) Some candidates used the wrong CAD terminology. Terminology is found in the Course Assessment Specification. The terms Helix, Axis and Profile are the correct terms that should have been used. Many candidates used the term Coil, which is specific to a software package.

Question2 (d) Most of the candidates identified the symbol for contour lines; very few identified the window hinged at the side. A few candidates identified the existing tree to be removed.

Question 4(d) Some candidates found this question challenging. Few candidates were able to correctly apply the BS convention for a screw thread.

Question 4(e) Some candidates did not take the chamfer into account when calculating the overall length of the dowel.

Question 5(b)ii Candidate performance was poor in this question on proportion, and it was not answered by some candidates. A few candidates mentioned the size of objects but did not mention the effect the size had on the document.

Question 6(c) Candidate performance was poor in this question on balance. Candidates were required to mention symmetry and asymmetry and to explain the effect of each on the document. Many candidates did not do this.

Component 2: Assignment

Candidates appeared to find the preliminary graphics section challenging. The verification team did not see an improvement in the quality of responses that was seen in other sections, and in particular CAD.

Preliminary graphics are typically created using manual techniques using pencils, pens and other equipment, although candidates can create responses in this area using electronic means. It is apparent that candidates are not confident using critical manual techniques. Centres are advised that further study, revision and practice in this area may see an improvement in quality and hence marks.

Section 5: Advice to centres for preparation of future candidates

Component 1: Question paper

In preparation for the 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 that their response is clearly indicated and identified.

The correct terms from the Course Assessment Specification should be used at all times in the examination. This is of particular importance when responding to questions on 2D and 3D CAD and British Standards, 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

Section 1: Research & analysis

Research and analysis was marked fairly consistently, and centres correctly identified that whilst there are only 4 marks in this section, the range and depth of content should be deeper. Candidates did focus more on the promotional graphics element at the expense of other areas, and centres are advised to address this for future presentations.

Section 2: Preliminary graphics

Some candidates produced retrospective planning. Several centres did not identify these issues and centres are reminded that work that is traced or retrospective does not attract any marks.

The quality of preliminary work was not as expected; heavy, rough and inaccurate construction and poor outlining significantly reduced the marks in this area. Some candidates also did not use British Standards correctly and this had a detrimental effect on the marks awarded.

Section 3: Production graphics

Aspects of production drawings were poorly marked — in particular the presentation of technical graphics — were often not to the standard expected. Views tended to be of an inappropriate scale, poorly dimensioned, or missing features such as centre lines. This is

unfortunate as candidates have often created impressive and complex 3D models, and this effort is not apparent in the drawings created from the models.

Section 4: Promotional graphics

The DTP element of the task was often finished to a high standard. However, the quality of rendering of the scene was significantly below what was expected. Many candidates had not considered the scale of items within a scene, the quality and scale of textures, position of lights or composition of the scene. Creating views where the camera is lower and focusing on a few key items, rather that the whole 'room', may improve scenes and renders.

Centres may wish to consider preparing candidates for this aspect by practicing composition of 3D graphical scenes.

Statistical information: update on Courses

Number of resulted entries in 2014	0

Number of resulted entries in 2015	3948

Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark - 140				
A	25.8%	25.8%	1018	96
B	29.3%	55.0%	1155	82
C	25.1%	80.1%	991	68
D	7.5%	87.7%	298	61
No award	12.3%	-	486	0

For this Course, the intention was to set an assessment with grade boundaries at the notional values of 50% for a Grade C and 70% for a Grade A. However, the lack of availability of a supplementary resource (not directly tied to the question paper, but which was familiar to the predecessor qualification) was felt to have affecting all candidates. Accordingly, all three boundaries were lowered by two marks.

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.