Course report 2019

Subject	Graphic Communication
Level	Higher

This report provides information on candidates' performance. Teachers, lecturers and assessors may find it useful when preparing candidates for future assessment. The report 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.

The statistics used in this report have been compiled before the completion of any post-results services.

Section 1: comments on the assessment

Question paper

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

As a whole, candidates appear to have been well prepared for the Higher question paper. Responses this year showed a good depth of knowledge on the subject matter. Candidates' performance demonstrated that centres were covering most of the topic areas sufficiently.

As in previous years, 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 fully answer the question and gain full marks.

A number of candidates are not using correct terminology for CAD questions — terms from the course specification must be used. The incorrect terminology includes coil instead of helix, circular array or pattern instead of radial array and most commonly extrude cut instead of extrude subtract.

The 'state' type questions only require one answer — many candidates gave multiple answers, which were not required.

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

The vast majority of candidates made an attempt to respond to all questions in the paper, with a small number of no responses recorded.

The quality of the responses to the DTP elements, principles and features questions improved slightly this year. Candidates were clearer with their descriptions, and were more knowledgeable than previous years.

Assignment

This was the first year of the change to the assignment, and the first of the annually produced assignment tasks.

On the whole, candidates seemed to have been well prepared for the assignment. The quality of the work produced showed that candidates were able to put the practical elements of the Higher course into practice to a very good standard, particularly in the CAD work.

DTP was an area that could have been improved on, as some candidates did not produce work of a Higher standard.

Section 2: comments on candidate performance

Areas that candidates performed well

Question paper

Question 1(a)
Most candidates performed well in this question by identifying materials, lights, shadows, reflections, and decals.

Question 1(b) (i)
The 3D modelling of the lid for the blender was answered well with good knowledge of lofting, offset workplanes, extrusions and shells.

Question 2
The sectional view of the wheel and tyre assembly was attempted well with very few candidates simply hatching the whole object. It is clear that this is being taught well in centres and candidates were reading and interpreting the drawings with some skill.

Question 3(d) (ii)
The DTP question on depth was answered very well with candidates identifying where it was used and the effect it had on the publication.

Question 3(d) (iv)
The DTP question on unity was answered very well.

Question 4(a)
The helix question was the best attempted 3D modelling question.

Question 5(b)
Candidates displayed a good knowledge of the features of a British Standards location plan.

Question 5(c)
Candidates displayed good graphical interpretation skills when reading from the graphics relating to the proposed and final plans for the festival.

Assignment

Task 1(a)
Candidates were able to produce orthographic drawings with the three related views according to British Standards.

Task 1(c)
Candidates clearly have a very good understanding of how to produce exploded isometric drawings. A number of candidates included a parts list and numbered the components; though not required, this is good practice.

Task 2(a)
Scene creation and rendering was done very well.

Task 2(b)
The planning stages of DTP were done well, candidates were able to represent their plans for their DTP work in a clear and concise way. Electronic iterations of layouts were particularly effective.

Areas that candidates found demanding

Question paper

Question 1(a)
Some candidates gave one word answers for a describe question and were not able to access all marks.

Question 1(b) (i)
Some candidates were not awarded marks for using the wrong terminology or for shelling the component incorrectly.

Question 1(c)
Candidates performed very poorly in the question about constraints in the assembly of the blades for the blender. The average mark was very low. Very few candidates mentioned the correct terminology from the course specification. To gain the marks candidates had to mention the centre axis, mate, offset and orientate commands.

Question 3(a) (ii)
The question on the vector file extension .svg was very poorly answered.

Question 3(b) (ii)
The DTP question relating to balance was the most challenging question. A very small number of candidates knew that balance was about the symmetry and asymmetry in a layout. This area has been used in past papers and is one of the design elements and principles in the course specification.

Question 4(d) (i)
The British Standards conventions question about the diameter of the bolt caused problems for candidates. There were multiple positions on the graphic where they could have placed the diameter but still candidates made errors. Markers accepted the diameter as 5mm or M5 with the relevant arrows to British Standards but very few candidates managed to do this correctly. This was disappointing, especially when there are several annotated drawings showing dimensions throughout the question paper and supplementary booklet.

Question 4(d) (ii)
The British Standards question about the length of the thread caused issues. Candidates mostly had the projection lines, leader lines and arrow heads correct but had positioned them in the wrong place and/or labelled them with the wrong size.

Question 4(d) (iii)
The British Standards question about the convention for the thread in the two views of the bolt caused problems. Many candidates knew that there would be two straight lines in the elevation to depict the thread but placed them incorrectly. A small number of candidates

achieved the second mark for the broken circle in the end elevation but again many got the position of this wrong.

Assignment

Task 1(b)

Candidates found the execution of the stepped section to be challenging with a number of candidates not producing a stepped sectional view that met the requirements of the task. The enlargement view was also not done particularly well, often candidates produced an enlargement view that did not provide the required detail.

Task 2(c)

The execution of DTP work seemed to be a challenge. Though there was evidence of clear planning, the final results often lacked the finesse required at Higher level with regards to the required DTP elements and principles. Some candidates struggled to both produce ‘rhythm’ and explain its use. Gradient fills were used frequently with little visual impact.

Task 3(a)

The overall quality of sketching was poor. A number of candidates incorrectly interpreted the orthographic sketch which resulted in an inaccurate representation of the luggage tag. A number of candidates did not produce an elliptical sketch. Some candidates seemed to find producing a render at Higher standard to be a challenge.

Task 3(b)

The effective use of the DTP features seemed challenging for candidates.

Section 3: preparing candidates for future assessment

Question paper

The correct terms from the course specification should be used at all times. This is of particular importance when responding to questions on 2D and 3D CAD. Performance in this area has vastly improved since the first examination in 2015 but there are still a number of candidates who are using generic terms that are specific to CAD packages, rather than those in the course specification.

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 command words 'describe' and 'explain' require extended answers.

Candidates should be encouraged to sketch and annotate their answers to 3D modelling questions. There was more evidence of this than ever before. The candidates who performed better were generally those who chose to use sketching along with a description rather than a block of extended writing. There was still evidence of candidates not referring to the dimensions given — this is critical to any 3D modelling process.

The DTP term 'balance' is not being taught well in centres, with only a very small number of candidates actually gaining a mark. This term should be reinforced in centres for future presentations.

The DTP term 'alignment' is being confused by candidates with 'justification of text'. The majority of candidates were describing left, right, central or fully justified text when answering the alignment question. This term should be reinforced in centres for future presentations.

In questions relating to digital technology in graphic communication, for example Question 3(a) (iii) 'the paperless office', Question 3(c) (ii) 'the digital bus stop screen' and Question 5(h) 'map for the range of screen sizes on a digital device', candidates gave generic advantages of computer graphics software/hardware rather than benefits relating to the specifics of the question asked. Centres should remind candidates to answer questions using the specific context of the question.

All parts of Question 4 in the 2019 question paper are integral parts of the teaching of British Standards — centres should ensure this content is covered as part of learning and teaching.

Assignment

It was stated in the assignment coursework assessment task that a pre-existing or centre produced template could be used for CAD. A number of candidates and centres used templates that did not conform to British Standards. For example, the third angle projection symbol was incorrectly drawn in a number of templates. It is recommended that centres review CAD templates to ensure they meet the requirements of British Standards. If they do not this can disadvantage candidates. Centres should make sure that the border and title block do not take up a disproportionate amount of the page.

Centres should ensure that candidates do not have access to the internet and that conditions of assessment are adhered to. Otherwise there is a risk of centre and/or candidate malpractice.

Centres are reminded that if candidates produce items, for example CAD models and graphic items, which are not required by the coursework assessment task they will not attract marks.

Candidates need to improve their manual sketching skills. A large proportion of candidates seemed ill prepared to produce a sketch of Higher level complexity. A range of view types were used, and where successful, the sketches showed a very good level of skill in sketching. Some candidates used electronic sketching successfully.

Grade boundary and statistical information:

Statistical information: update on courses

Number of resulted entries in 2018	4134

Number of resulted entries in 2019	3497

Statistical information: performance of candidates

Distribution of course awards including grade boundaries

Distribution of course awards	Percentage	Cumulative %	Number of candidates	Lowest mark
Maximum mark				
A	18.0%	18.0%	630	93
B	27.7%	45.7%	969	80
C	28.9%	74.6%	1010	67
D	16.6%	91.2%	579	54
No award	8.8%	-	309	-

General commentary on grade boundaries

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.

SQA aims to set examinations and create marking instructions that allow:

- a competent candidate to score a minimum of 50% of the available marks (the notional C boundary)
- 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.

Therefore, SQA holds a grade boundary meeting every year for each subject at each level to bring together all the information available (statistical and judgemental). The principal assessor and SQA qualifications manager meet with the relevant SQA head of service and statistician to discuss the evidence and make decisions. Members of the SQA management team chair these meetings. SQA can adjust the grade boundaries as a result of the meetings. This allows the pass rate to be unaffected in circumstances where there is evidence that the question paper has been more, or less, challenging than usual.

- The grade boundaries can be adjusted downwards if there is evidence that the question paper is more challenging than usual.
- The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual.
- Where standards are comparable to previous years, similar grade boundaries are maintained.

Grade boundaries from question papers in the same subject at the same level tend to be marginally different year to year. This is because the particular questions, and the mix of questions, are different. This is also the case for question papers set by centres. If SQA alters a boundary, this does not mean that centres should necessarily alter their boundary in the question papers that they set themselves.