



External Assessment Report 2013

Subject(s)	Graphic Communication
Level(s)	Higher

The statistics used in this report are pre-appeal.

This report provides information on the performance of candidates which it is hoped will be useful to teachers/lecturers in their preparation of candidates for future examinations. 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 question papers and marking instructions for the examination.

Comments on candidate performance

General comments

Candidate performance in Section A improved from last year, with candidates appearing to be well prepared by centres. The overall performance in Section B remained constant compared with the previous year. However, there are still some centres presenting candidates at an inappropriate level, with these candidates not displaying the knowledge or skills required for Higher.

Grade Boundaries were moved at all grades as, unintentionally, there was a slight easing of the general demand of the question paper.

Areas in which candidates performed well

Section A

- ◆ Question 1, the three Ps: Well answered by most candidates. Pupils appeared well prepared for this type of question.
- ◆ Question 3, Architectural features: Very well attempted.
- ◆ Question 4, DTP terminology: Well answered by most candidates, although there is some misunderstanding of the terminology *headline* and *rule*.
- ◆ Question 5b): Candidates appear to be well prepared for this type of question.
- ◆ Question 6a), CAD commands: Candidates appear to be well prepared for this type of question.

Section B

- ◆ Question 9, Auxiliary Plan: Centres appeared to have responded to previous advice and there was an improvement in the quality of candidate response to this question, although some candidates did not realise the shade was hollow and that internal detail could be viewed in the auxiliary. Centres are reminded that freehand curves should be smooth single lines.
- ◆ Question 10, Assembly Mechanism: Candidates demonstrated a good understanding of the assembly.
- ◆ Question 11, Oblique: This question was well done by the majority of candidates who attempted it, although some candidates missed drawing the internal detail. The angled circle drawn at 45° provided the challenge for the more able candidates.
- ◆ Question 12, Isometric: This question was well done by the majority of candidates who attempted it. The two connecting lines provided the challenge for the more able candidates.

Areas which candidates found demanding

Section A

Question 2a): This question was poorly attempted. It appears that a significant number of candidates did not have sufficient depth of knowledge in this topic area. Many candidates

are uncertain why tolerances are used in industry. Centres are reminded that candidates should have access to calculators to assist in the calculation of tolerances.

Question 5a): Candidates performed poorly in this element. Sections and sectioning have been examined regularly, but some candidates appear not to have an understanding of the conventions or terminology required.

Question 6b): Candidates performed poorly, with some not achieving all the available marks. Centres are reminded that knowledge of hardware associated with CAD and DTP is an integral part of the Course.

Section B

Question 7, Tangency: It was evident that some centres have prepared candidates well for this question. However, a number of candidates are still displaying poor draughtsmanship in the following areas: leaving tails or not connecting arcs smoothly; not clearly showing the centres of the arcs or circles as asked for in the question; and inaccurate measuring. Poor quality of draughtsmanship may be a result of inadequate or poorly maintained equipment. Candidates should **not** draw freehand over arcs or circles.

Question 8. Measured perspective. Centres are reminded that outlines should be firmed up and not left as construction lines.

Question 9, Auxiliary and Development:

- ◆ a) Candidates did not recognise that the shade cut at 45° generated an arc that could be drawn with a compass in the end elevation.
- ◆ c) As in previous past papers the development was not well attempted. Some candidates did not recognise that the support cut a slot in the shade, and a number had difficulty in generating the length of the half development.

Question 10, Engineering assembly: The correct application of British Standards hatching proved challenging to some candidates. Many hatched through solid lines; did not hatch at 45°; and very few applied the correct hatching convention to an open and filled screw thread. In the end elevation, candidates did not recognise that the sloping lines met the arc at a tangent. The drawing of the key and keyway in the sectional elevation was very poorly attempted, indicating a lack of knowledge of this feature.

Question 11, Oblique: Although well attempted in general, very few candidates drew the internal detail viewed through the cylindrical opening. This may be attributed to the candidates not reading and interpreting the question carefully.

Advice to centres for preparation of future candidates

General

Although the general standard of candidate response this year showed improvement on previous years, the standard of draughtsmanship continues to be poor in some centres. The

majority of candidates appeared to be well prepared by centres, particularly for the pictorial questions and the auxiliary plan.

Section A

In general, the candidates appeared to be better prepared for the questions involving British Standards. Centres are again reminded that there is guidance on this topic on the SQA website, and it is strongly recommended that centres access this information.

Section B

Centres should ensure that all candidates have the required instruments, compasses, pencils etc, in good working order and appropriate to the task in hand. The correct rating of pencil, neither too soft nor too hard, can affect the quality of the candidate's drawing.

Centres are advised of the following:

- ◆ A clear difference between construction and completed outlines needs to be evident.
- ◆ Candidates must draw in an outline to be awarded the marks.
- ◆ Lines should not extend beyond their completion point; marks are not awarded if lines continue past their termination.
- ◆ The construction of centres should be clearly shown in tangency questions. Arcs must be drawn with compasses and not drawn freehand.
- ◆ Centre lines and hidden lines should be drawn clearly and to British Standard.
- ◆ Centres are advised to review their approach to teaching of drawing to British Standard, in particular with regard to hatching convention and thread detail.

Statistical information: update on Courses

Number of resulted entries in 2012	4120
Number of resulted entries in 2013	4062

Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark 200				
A	29.7%	29.7%	1205	145
B	27.6%	57.2%	1120	125
C	23.2%	80.5%	943	105
D	8.5%	89.0%	347	95
No award	11.0%	100.0%	447	-

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.