Report to the Tánaiste and Minister for Education and Skills on Examination Paper Preparation and Production Issues in the 2010 Written Examinations

1. Summary

In the course of the 2010 written examinations there were two particular issues which were the subject of significant commentary. These were

- (i) the distribution of an incomplete examination paper to 217 candidates in 19

 examination venues* as a result of a production error in collating some of the examination papers for Leaving Certificate Accounting (Higher Level), and
- (ii) errors in a question on the Junior Certificate (Higher Level) Business, Paper 2 examination.

Such errors are most regrettable and the State Examinations Commission (SEC) has issued a public apology to the candidates and schools concerned. It has also emphasised that it will seek to ensure that candidates will not be disadvantaged as a result of the errors.

When an error occurs, the SEC focuses on two issues. As a priority, it seeks to ensure that no candidate is disadvantaged as a result of the error. Then, in the context of the specific error in question, it reviews its existing operating systems both in relation to

- a) the structures and systems themselves, and
- b) staff interaction and engagement with the structures and systems.

The review at b) above is undertaken as an integral part of the normal personal performance reviews that apply in the SEC each year. By taking this approach the SEC aims to provide a comprehensive review which enables the organisation to focus on both the robustness of its processes at a structural/systems level, and the thoroughness and effectiveness of its staff in delivering the final product with the central objective of minimising the possibility of a recurrence of an error.

• The SEC, having reviewed carefully the circumstances of the issues involved, is satisfied that the mistakes made in both of these examinations resulted from human error. It has also concluded that, while its systems for examination paper preparation

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^{* 18} schools, 1 examination hall.

and production are fundamentally robust, the issues that arose this year will be reviewed further as part of the normal annual review processes. The SEC will continue to emphasise the importance of all procedures and protocols being fully adhered to in its paper preparation and production processes.

2. Background

2.1 General Context

The SEC is responsible for the development, assessment, accreditation and certification of the second-level examinations of the Irish State. These include the Junior Certificate and the Leaving Certificate. The SEC is a non-departmental public body under the aegis of the Department of Education and Skills. In common with all public bodies, the SEC must bring a very strong focus to the use of its allocated resources each year and find an appropriate balance in delivering an examination service which must provide quality, wide accessibility, openness and timeliness.

The conduct of the State Examinations each year is a significant logistical operation and relies greatly on many millions of human interactions and transactions by both the internal and external staff of the SEC. These include the SEC's administrative and technical staff; contract staff (such as examiners and superintendents); school staff; and external contractors including confidential printers. It is estimated that, in all, over 23,000 individuals have a direct involvement in performing specific functions each year in the running of the examinations. Each of the interactions by the personnel involved is governed by established operating frameworks and protocols.

2.2 Test Instruments

The SEC arranges for examinations in 90 curricular and 15 non-curricular examination subjects each year. It generates some 254 different examination papers and other test instruments. These include, for example, oral tests, aural recordings, practical briefs, project briefs, portfolio and coursework items, as well as the written examination papers.

Written examination papers are produced in both English and Irish versions (with the exception of the subjects English, Gaeilge, and non-curricular languages). Where required,

modified and braille versions of examination papers are also produced. In addition, the SEC produces a full set of Leaving Certificate contingency papers which are developed under similar principles and protocols as the main papers. Delivering the State Examinations involves the production of approximately 3.1 million individual examination papers annually, equating to approximately 38 million A4 pages.

2.3 Dealing with Errors

The key objectives of the SEC include the provision of an examinations system of the highest possible quality with a central aspiration of presiding over an open and transparent system that is completely error-free. While the SEC has in place a range of procedures and protocols to enhance reliability and to minimise error throughout its processes, it is the case that errors can still occur.

When an error does occur, the SEC has to focus on two issues. As a priority, it seeks to ensure that no candidate is disadvantaged as a result of an error that has occurred. Then, in the context of the specific error in question it must review its existing operating systems both in relation to

- a) to the structures and systems themselves, and
- b) staff interaction and engagement with the structures and systems.

The review at b) above is undertaken as an integral part of the normal personal performance reviews that apply in the SEC each year.

This is the manner in which the SEC aims to provide a comprehensive review which enables the organisation to focus on both the robustness of its processes at a structural/systems level and the thoroughness and effectiveness of our staff in delivering the final product with the central objective of minimising the possibility of a recurrence of an error.

3. Leaving Certificate Accounting (Higher Level), Monday 21st June 2010.

3.1 Context

The State Examinations involve the production and printing of approximately 38 million A4 pages annually. For the 2010 examination approximately 15% of this material was printed

internally by the SEC and the remainder was outsourced to two UK-based confidential printing companies following a competitive procurement process. The 2010 Leaving Certificate Accounting (Higher Level) paper was printed and collated internally in the SEC.

3.2 Issue

The Leaving Certificate Accounting (Higher Level) paper is a 12-page document and it is printed on three A3 pages which are then collated. The production of the examination papers for Leaving Certificate Accounting involved the printing and collating of 10,000 papers. As a result of an error in the collating process, a small number of the examination papers were incorrectly collated.

All relevant staff involved in the collating process were provided with, and instructed on, the application of the protocol applying to this task.

In the case of Leaving Certificate Accounting (Higher Level), the problem occurred in one box of papers of the 24 boxes used for examination centre packing where the error was not detected. This resulted in incomplete examination papers being packed and distributed to some 217 candidates at 19 examination venues (ie 18 schools and 1 examination hall). This represents approximately 4.5 % of the Higher Level candidates for 2010.

3.3Action Taken

When the SEC was notified of the problem very shortly after the commencement of the examination in the affected schools/examination venues, arrangements were made to immediately e-mail or fax the paper to the schools affected. Superintendents were instructed to advise candidates to continue with the original paper which was possible to do as all of Section 1, which is mandatory, was available to all candidates concerned. They were also instructed to give candidates such additional time as was necessary to make up for time lost as a result of dealing with the error. The Chief Examiner for Leaving Certificate Accounting has advised that Section 1 takes approximately one hour to complete. The SEC is therefore of the view that all affected schools could have commenced the examination and would have obtained and distributed the correct paper to candidates within that timeframe. The amount of time to be added on by individual superintendents as a result of dealing with this error would have varied across centres. It would depend on, for example, making contact with the SEC,

interacting with school authorities and candidates, and the number of candidates to whom the complete papers were required to be distributed.

In addition to the normal report completed by superintendents on the conclusion of the examinations in their centres, the SEC sought a specific report on this incident from the 29 superintendents in the 19 examination venues which received the faulty paper. Based on the reports from superintendents, the SEC is satisfied that the candidates in the centres affected by the error were afforded the opportunity to work on the paper for 3 hours, as specified in the Leaving Certificate examination timetable.

The SEC also received a considerable amount of correspondence from the schools and candidates and their parents stating that the candidates had been disadvantaged by the error.

The SEC has conducted a review of the work of candidates in the schools affected by the printing error on the Higher Level Accounting paper 2010, to ascertain what impact, if any, the error had on performance.

In carrying out the review the Chief Examiner and Chief Advising Examiner for Leaving Certificate Accounting (Higher Level)

- Compared the results of the affected schools between 2007 2010;
- Examined each candidate's script;
- Noted the reports submitted by superintendents;
- Noted comments from candidates/parents/school;
- Studied the report of the examiner who marked the scripts in question;
- Analysed the results and scripts of candidates from a control school, consisting of a centre which was unaffected by the printing issue and similar in size to one of the larger centres under review, and compared them with those of the affected centres.

Following the review, the Chief Examiner has concluded that

- There is no evidence that the printing error impacted negatively on the centres examined.
- In the two schools where additional time was allowed, there is no evidence that candidates in these centres were advantaged.

- The rate of completion of the required number of questions was higher in thirteen of the schools examined than the national average of 95%.
- The results in the schools affected are in line in most cases with their previous years' results.

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3.4 Conclusion

- The error in a number of Leaving Certificate Accounting (Higher Level) papers can be attributed to human error in the course of the production of the paper.
- The SEC is satisfied that, subject to the normal annual review, the existing protocols provide a robust framework for the accurate preparation and production of examination papers.
- The SEC will review its existing protocols for examination paper production as part of the normal annual review with a view to further strengthening these protocols.

4. Junior Certificate Business (Higher Level), Tuesday 15th June 2010.

4.1 The Paper Preparation Process; General

The process of creating an examination paper encompasses a number of stages. These include drafting, setting, proofing and signing-off stages. The procedures to be followed by all personnel involved in the State Examinations are governed by an extensive range of guidelines and protocols issued by the SEC. The guidelines and protocols that govern the work of personnel involved in the development of examination papers are outlined in the *Manual for Drafters, Setters and Assistant Setters* and *The Preparation of Test Items* – *Principles and Protocol*. These documents are available on the SEC website www.examinations.ie under Publications.

4.2 Issue with Junior Certificate Business (Higher Level) Examination Paper 2010

Junior Certificate Business (Higher Level) consists of two papers – Paper 1 and Paper 2.

Paper 2 includes a returnable insert page on which candidates are required to write the answers to certain questions, including Question 6 which was on Cash Flow Forecast.

All relevant staff involved in the process were appropriately trained and advised of the relevant protocols.

The draft examination material for the 2010 examinations was submitted to the SEC on 24 July 2009. Draft worked solutions were also submitted at this time, as per protocol.

At an early stage in the setting process, amendments were agreed and applied to the draft examination paper. Question 6 of the original draft was amended as the original draft question was deemed too difficult. Solutions to the revised questions were also worked through at that juncture utilising hard copy materials. Amendments were then effected on the electronic version of the paper. In doing so, errors in relation to the Cash Flow Forecast figures for Question 6 were introduced and were not detected during the subsequent setting and proofing processes.

4.3 Action Taken

When the errors were discovered at the time of the examination, the schools and superintendents that contacted the SEC during the examination were instructed to advise candidates to proceed with the examination as scheduled. The SEC gave assurances that candidates would not be disadvantaged as a result of the errors on the paper, and that these would be taken into account in the context of the development of the marking scheme.

The marking scheme for Business Paper 2 was developed with a view to taking the errors on the paper into account and in order to ensure that candidates were not disadvantaged. In that regard, the SEC is satisfied that, through the application of this marking scheme, there have been no adverse affects on candidate outcomes. Indications at this stage are that the results for Business in 2010 will be broadly in line with those of previous years.

4.4 Conclusions

• The errors on Junior Certificate Business Paper 2 can be attributed to human error in the course of the preparation of the paper.

- The SEC is satisfied that, subject to the normal annual review, the existing protocols provide a robust framework for the accurate preparation and presentation of examination papers.
- The SEC will review its existing protocols for examination paper production as part of the normal annual review with a view to further strengthening these protocols.