



# **Internal Assessment Report: Information Systems**

Assessment Panel: Computing and Information Systems

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject.

# Component/Coursework in National Courses

## Component/Coursework verified

Information Systems — Intermediate 2, Higher and Advanced Higher

## Feedback to centres

### General comments

There was a considerable reduction in the number of centres selected for central verification for Intermediate 2 and Higher. Of the 48 centres verified, there were 37 'Accepted' and 11 'Not Accepted', which equates to approximately 23% of centres 'Not Accepted'. This is better than in 2008, when 29% were 'Not Accepted'.

As in previous years, the Using Information sections at Higher and Intermediate 2 were leniently marked, and the Database section of the Higher was also fairly leniently marked. At both Higher and Intermediate 2 levels, the main problems came from candidates not comparing applications in terms of the stated criteria and not relating their answers to the scenario or task stated, particularly in relation to operations at Intermediate 2 and functionality and usability at Higher.

It was suggested that it would aid the verification process enormously if candidates' hard copies of reports were annotated to explain why marks had been awarded or deducted. Detailed comments provided in the marking grid are extremely useful to the verifier as a guide to how marks were awarded — or, in fact, as a guide to the amount of help provided.

Centres should pay attention to the organisation and conditions for assessment to ensure that every candidate's work is their own, particularly with reference to the completion of pro formas.

Visiting verification for Advanced Higher continues to be very successful. With the introduction of the detailed marking instructions for the Coursework task, most centres carried out the marking of the project accurately, consistently and in all cases, within the tolerance set. Centres truly appreciate the visit and gain a great deal from the feedback and discussions with the visiting verifier. All seven Advanced Higher centres selected for verification were 'Accepted'.

## **Advice on good practice and areas for further development**

### **Intermediate 2**

#### **Part 1: Using Information**

Task 1 was generally well done. The majority of candidates managed to create the four web pages according to the stipulated design, although some found difficulty in right-aligning the text at the top of each page.

Task 2 proved to be more challenging for candidates. Some candidates incorrectly classified operations as objects. For example, *inserting text* and *formatting text* were given as examples of objects, when *text* should have been the object, and *inserting or formatting* the operation. The candidates had to describe operations relating to the creation of the website. Many centres awarded marks to candidates for describing operations that were generic and did not relate to the creation of this particular website. The online help was poorly evaluated. Candidates were merely listing the features of the online help without any attempt to evaluate its use. Marks should only have been awarded where an attempt at an evaluation had taken place, ie an opinion or an idea of how they felt about two features of the online help. For example, what features of the online help made it easy for them to use to solve problems, did they find it easy to follow, easy to implement, etc.

#### **Part 2: Databases**

In general, this section was accurately and fairly marked by centres. There were, however, a number of points that centres should take into consideration in marking future Coursework.

In Task 1, candidates should refrain from using package-specific data types, eg container (Filemaker) and currency (Access). The restricted choice should always list the data values, eg 1, 2 or 5 both in the data design form and in the implementation. Many candidates entered the values for the restricted choice as validation text but not as a validation rule which has no effect on the validation of that field.

In general, the verification team decided on a tolerance of 2 out of a total mark of 30, which was the same as last year, and also in line with Intermediate 2 Computing.

### **Higher**

In general, this section was accurately and fairly marked by centres. There were, however, a number of points that centres should take into consideration in marking future Coursework.

In Task 1, which was the data dictionary, candidates must include the data values for the restricted choice. Some centres awarded the marks for restricted choice only for C. Data types should be generic according to the Arrangements and not package-specific, eg container (Filemaker) and currency (Access).

In the creation of the tables from the completed data dictionary in Task 2, a significant number of candidates entered the validation text, but did not enter the validation rule, yet were awarded the marks. This has no effect on the validation of the attribute.

When creating a 'lookup' from a related table, candidates must either enforce referential integrity or set the limit to list value to 'true' in order that free text cannot be entered. Limit to list should also have been set to 'true' for the restricted choice validation to prevent the entry

of free text. Many candidates were not penalised for this. It would be good practice for centres to annotate printouts from documenter to indicate where marks have been awarded or deducted.

In Task 2 (b), referential integrity should always be enforced when printing out relationships.

In Task 5 (b), evidence from macros did not always show the required opening and closing of each form as required by the task, yet many candidates were awarded full marks for this.

Task 6 (a) was very leniently marked. For functionality, the majority of candidates merely listed the features of both packages or their chosen package but failed to make any comparison between the two. Also, the features given by the candidates tended to be generic and related to the creation of the newsletter. Usability tended to be a repeat of the functionality, and no attempt was made to explain how the chosen features made the creation of the newsletter easier to produce.

In Task 6 (b), consistent house style was very leniently marked and did not adhere to the detailed marking instructions. For newsletter layout, a significant number of candidates used text boxes of different sizes instead of columns and the amount of white space was not appropriately penalised. Article 2 was leniently marked and poorly carried out by candidates.

As with last year, a tolerance of 4 out of a total mark of 60 was agreed for the Higher Coursework task which, again, was in line with Higher Computing.

### **Advanced Higher**

Centres really appreciate the visiting verification model used for Advanced Higher. It gives the centres the opportunity to discuss and agree on how marks should be awarded to the project. Teachers/lecturers receive invaluable advice and support on what is expected as the National Standard for the project which, in turn, will help them significantly in marking the projects of future candidates.

The following advice should continue to be adhered to by centres presenting Advanced Higher:

- ◆ Ensure there is evidence for every requirement of the marking scheme.
- ◆ Ensure complexity of the task, particularly relating to the processes involved in the task and the design of the user interface, is at Advanced Higher level.
- ◆ Ensure that the candidate's system design documentation, ie data modelling, data flow and entity modelling matches the functional requirements in the specification.
- ◆ Ensure that the process of normalisation from UNF to 3NF is included and has been carried out correctly.
- ◆ Check E/R diagram reflects the normalised data model.
- ◆ The design in relation to normalisation and E/R diagrams should reflect the whole database system and not individual sub-systems which have been normalised and E/R diagrams created independently of the other entities.
- ◆ Ensure the design of the user interface is carried out prior to implementation and not screen shots of the interface which has already been implemented.
- ◆ Time allocation should be a plan of how long is to be spent on each activity, not a progress diary of how long was spent on each activity.

- ◆ Candidates must supply evidence of a complete working solution which has been systematically tested to match the original functional requirements.

A tolerance of 6 out of a total mark of 80 was agreed for the Advanced Higher Coursework task which, again, was in line with Advanced Higher Computing.

### **Recommendations**

The Coursework task is intended to give candidates the opportunity to apply their knowledge and understanding to a complex context. Centres should only award full marks where candidates have related their answers to the context of the task.

The sample Coursework tasks, which are contained in the Course assessment packs for each level, include sample solutions which indicate suitable levels of response.