

## **Examiners' Reports**

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**January 2011**

**1994/1094/R/11J**

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This report on the Examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the Examination.

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## Chief Examiner's Report

The Full Course (Specification 1994) is comprised of four Units: 2357, 2358, 2359 and 2360. The Short Course (1094) consists of Units 2357 and 2358.

Units 2358 and 2360 are internally assessed coursework papers. Units 2357 and 2359 are externally assessed written papers.

### General Comments on Internally assessed Units (Units 2358 and 2360)

Centres are again reminded that in Unit 2358 (Short Course coursework Projects 1a/1b) correctly completed and submitted documentation is essential in enabling moderators to choose a representative sample that allow moderators to review work from Project 1a and from the various strands for Project 1b. Centres are again requested to ensure that the moderator receives all the required documentation by the due deadline date.

Centres are once again reminded that it is a requirement for both Unit 2358 (Projects 1a/1b) and Unit 2360 (Project 2) that Centres submit a Centre Authentication Form (**Form CCS160**), signed by its teacher/assessors, and this form should be sent to the moderator with the mark sheets (**MS1**) along with, for Unit 2358, the Coursework Mark Summary sheets. It is also a requirement for each candidate to sign a Candidate Authentication Form indicating that the work submitted is their own but these forms, or a copy, should be retained at the Centre unless requested by the moderator.

Centres are referred to the published OCR documents relating to coursework administration, to the 1094/1994 Specification and to the Teacher's Guides.

*Note also that OCR offers a Coursework Consultancy Service for those in any doubt of the suitability of the coursework being submitted.*

### General Comments on Externally assessed Units (Units 2357 and 2359)

While it was noted by examiners that fewer candidates used additional sheets of paper for Units 2357 and 2359, Centres are again reminded to actively discourage candidates from using additional pages and to remind their candidates that all responses (answers) must be written on the lines provided and within the marked areas. If candidates do have to use additional pages or write elsewhere in the question paper they must make it very clear to the examiners which question they are actually answering. Further, despite the preceding comments, it is preferable that candidates use additional sheets of paper rather than write answers in the margins or blank areas of the question paper. Responses that are not assignable to questions cannot be given credit.

## 2357/01 Paper 1 (Foundation)

### General Comments

Candidates appeared able to attempt all questions and the paper discriminated well across the ability range.

### Comments on Individual Questions

- 1 (a) This was a question which appeared to indicate the overall mark on the paper that the candidates were likely to attain. Candidates that achieved full marks on this question tended to achieve over half marks on the paper overall, those that achieved over half marks on this question achieved approximately half marks overall and those that achieved less than half marks received few marks overall. A large majority of candidates gained more than half marks.
- (b) This was answered well. Most candidates gained the mark.
- (c) Most candidates achieved at least one mark for writing "illegal". The most common error was stating just 'copyright' instead of stating the implication.
- (d) This question was answered well. Most candidates gained the mark.
- (e) This question was answered quite well. Most candidates gained at least 2 marks. The last mark was sometimes lost through repeating an answer.
- 2 This question was answered well. Most candidates gained at least three marks. A common mistake was to mix 'creating 3D drawings' with 'editing an image'.
- 3 (a) This question was not answered as well as might be expected. Most candidates gained the mark, but too many candidates confused rows with columns.
- (b) This question was often answered correctly by those who also correctly answered part (a).
- (c) If candidates knew the correct way of designating cells then they achieved the mark for this, but many had difficulty explaining why this method is preferable to typing a £ sign in front of the number.
- (d) Once again, if candidates knew the correct way of designating cells then they achieved the marks in each part.
- (e) This part of the question was usually answered quite well, candidates being able to replace old figures with new ones and gain two marks. The most common mistake was to introduce D14 instead of D7.
- 4 This was answered well. Most candidates gained at least two marks.

- 5 (a) This question was usually well answered when floppy disk, USB stick or CD/DVD chosen. A common error was when using 'hard disk' as an answer; the candidate did not state that this had to be 'removable or external'. A majority gained two marks.
- (b) A significant number of candidates gained a mark for mentioning email. Many did not appreciate that the question required a method of file transfer other than using portable storage media and just produced another "portable" answer.
- 6 Candidates tended to achieve 0, 4, 5 or 6 for this question. Zero being achieved when candidates failed to understand that RT or LT required a two digit parameter to be attached, and seemed to know little about Logo or angles. Four tended to be awarded because the degree symbol was employed by the candidate, thus preventing the command from being executed. Five usually meant the candidate had failed to return to the start position by putting in the final angle turn, a common error.
- 7 This question was poorly answered with the vast majority of candidates scoring no marks at all. Too often candidates looked at this question from the viewpoint of the house being burgled and the consequences ie alarms go off, pressure pads so alarms will go off etc. The question was misinterpreted as it clearly states what 'input data method' might be used 'to **set** a burglar alarm'.
- 8 This was a question that was poorly answered with a majority of candidates scoring less than half marks. Marks were achieved by making points such as 'use a firewall', 'use anti-spyware' and so on without clearly knowing what these actually did. Candidates seem to lack the knowledge of what a specific piece of software is designed to do.
- 9 (a) Although there were few well-presented answers, about half the candidates managed to score up to half marks by vaguely connecting sensors to an interface, or mentioning AD converters without really knowing what they were there for. Named sensors ranged from acceptable ones to guesses such as weather sensors.
- (b) (i) About half the candidates managed to pick one of the standard answers to score a mark.
- (b) (ii) Same comments as (b) (i)

## 2357/02 Paper 1 (Higher)

### General Comments

The question paper performed as expected discriminating well across the ability range. Most candidates were able to access all questions.

It should be noted that candidates still lack sufficient skills in answering the questions that require a 'discussion' such as Q.7. Many answers consisted of lists or generic comments on the topic given in the question rather than a balanced discussion addressing all the aspects given in the question.

There were far fewer candidates leaving questions blank. Candidates had sufficient time to answer the questions.

### Comments on Individual Questions

1 Most candidates made a reasonable attempt at this question but many introduced additional commands, words or signs. As these were often wrong (eg the use of degree sign in the left/right turn commands), many candidates did not score as well as they might have if they had read the question properly. It also appears that even simple use of the commands is not well understood.

2 This question was not as well answered as expected. Many candidates wrongly assumed that the question was about setting the alarm or triggering the alarm. The question required candidates to identify methods of entering the required data into the system. Good answers referred to the use of keypads, retinal or finger print scanner and how these input the data to access and set the alarm.

3 There were some good answers to this question but also some confused responses. Most candidates could identify methods but few could properly explain how the methods protected the data. Many candidates reproduced the question as an explanation, eg firewall to prevent viewing by unauthorised persons but added nothing else.

4 (a) Only a few candidates correctly identified and named two or more particular sensors. 'Weather sensor' and 'thermometer' were common errors. Many candidates could state that components needed to be connected together in some way and that some sort of ADC would be needed - a considerable number thought that this would be a modem. Poorer responses had the sensors connected directly to the computer.

It was encouraging to see a number of students describing the use of data-logging equipment. There were many references to 'setting a timer' with no indication that this would be done via software. The diagrams that were submitted often lacked detail and included little, if any, labelling.

Some candidates failed to gain credit as they went into elaborate discussions on how many sensors, and their positions, would be required.

(b)(i) Usually well answered.

(b)(ii) Most candidates managed to score one mark here but few scored both. Answers were mostly vague eg expensive or could break down and repetitive.

- (c) This question was quite well answered but most candidates concentrated on graph/chart production and failed to fully answer the question.
- 5
- (a) This question required the candidates to describe the features and their use but many merely described the website and its contents.
  - (b) This question was answered well by most candidates.
- 6
- (a) Most candidates answered this question well with good descriptions of how to collect the data and to verify it.
  - (b) All that was required was to identify the two methods, but too many candidates went into lengthy descriptions that were often incorrect. However, most candidates answered this question well.
  - (c) This question was about database use. Most candidates answered this question quite well but too many merely wrote vague responses such as 'to see the colour' which gained no credit.
- 7
- Overall, this question was answered reasonably well but most candidates did not properly address all aspects of the question, failing to elaborate on the positive use of ICT but concentrating on the generic health topics and their possible solutions. To achieve high marks in this sort of question candidates must address all aspects of the question, in this case both causing health problems and overcoming health problems with reference to ICT. Better responses included good references to how ICT can assist in the diagnosis of illnesses, enhancing the lifestyle of people with disabilities and other ICT uses in overcoming health problems as well as referring to how ICT can potentially cause health problems.

## 2358 Coursework Projects 1a/1b

### General Comments

As has been noted in previous reports, where Centres failed to apply the assessment specification accurately it was mainly due to the marking of Project 1a. There was an increase in the number of Centres where teachers annotated the candidates' work with regard to where the evidence for meeting the criteria could be found. Unfortunately, there were some who gave general annotations such as Pages 4-65 etc. The criteria are quite specific so the evidence should correspondingly be on specific pages rather than spread throughout the work.

It is apparent that some centres are still not taking advantage of the Teacher's Guide published by OCR. This should be used in conjunction with the criteria for assessment, the notes for guidance as well as this report. If these were used when assessing the work, this would remove many of the problems apparently experienced by Centres.

There are still a number of Centres failing to send Coursework Summary Forms. This delays the whole moderation process and can result in Centres failing to have their results published on time. It is in the Centre's own interests to adhere to deadlines and to also provide the coursework sample within the three working days deadline.

The lack of internal moderation carried out by some Centres is still of concern. Centres are reminded that they have a responsibility to carry out internal moderation of marking. If internal moderation is not carried out it can lead to inconsistencies in marking. If these inconsistencies lead to an invalid order of merit moderators are required to return the work to Centres and ask them to re-mark the work. Such action obviously can result in a delay in publication of the Centre's results. This is happening with a greater frequency.

Another feature of the work seen was an increase in the number of centres whose work had to be referred for malpractice consideration. It is a worry that too much teacher guidance is being given to tasks, the solutions of which should be independently produced by the candidates.

### Project 1a

A number of Centres still fail to understand the need for candidates to meet all the criteria in a given mark range. This process has always been applied for Project 1b and so should have been fully understood by Centres.

Most Centres now realise that for marks above 10, candidates must produce a significant piece of work. This means that a booklet or website of 8 pages, or a presentation of 8 slides is required as a minimum.

Centres are still failing to realise the importance of the use of non-IT sources. Candidates fail to get even the lowest ranges of marks if they fail to include information from non-IT sources and at least one IT source in their final document. Just collecting leaflets and booklets or magazines is insufficient. Information from them, whether it be text, images or numbers, must be incorporated into their final product. All non-IT sources must be hard copy. The use of the candidates' own knowledge, memory or 'my teacher' is not considered to be using non-IT sources. A number of Centres still think that it is acceptable to show an image or some text and then give the name of the book or magazine it came from, however it is not. The evidence should be in the form of the original but where this is not possible, such as using books, candidates must include photocopies. A number of candidates are showing images in their write up claiming it as a non-IT source instead of showing the original or photocopy. This should also be clearly indicative of

its origin. Two pages from the same magazine, for example, only counts as one source, not two. What are claimed to be scanned images are not sufficient. The original or clear photocopy must be included.

The requirement for the inclusion of the 'use of number' is also mandatory at low mark levels. Candidates cannot base their 'use of number' on graphs if they do not show the table of numbers which their graph is based on. Some Centres have candidates which copied and pasted graphs which were really images from their sources. Any confusion is easily removed if the original numbers are included and the method of graph production is demonstrated.

The easiest approach is to use a table of numbers (as requested in the Teacher's Guide at 8-10 mark level) in the final document, and also showing in their write up where these numbers came from.

### **Examples of misconceptions**

For any marks at all to be awarded, candidates must provide evidence that they have collected, and then incorporated into their final products, information from non-IT sources. It is not sufficient to just collect information from non-IT sources. Candidates must take this information and incorporate it into their work, ie the final product. This is equally valid for IT sources. It is not sufficient for candidates to look at the Internet or CD ROMs, or in magazines, books and newspapers for 'research' purposes. Many candidates think that the point of collecting non-IT sources is to provide ideas for layout and presentation; it is not. It is so that the information collected can be used.

For marks above two to be awarded there must be evidence of numbers (plural) in the candidate's work. This was a major failing of many candidates. As has been stated in many previous reports, the rationale behind the use of text, images and number is that in any given document the formatting of each of these is done differently. There is a requirement that candidates are aware that numbers are formatted differently to the other two forms of information. One example is the use of currency, where each one would have a currency symbol in front of it and each number would have the decimal point in line with the others. An awareness by the candidates of the need for the different formatting requirements of numbers is all that is required. A number of candidates are still using numbers in sentences. This makes them text. Numbers are those which can, or in the case of graphs, have been, mathematically manipulated. Where data such as dates, times or prices are used they cannot have dashes, slashes or the word to (as in opening times) as this makes them text, as does the use of numbers in sentences. Graphs can be construed as images unless the manner in which they are produced is documented fully. The source of the numbers must be documented. They cannot just be invented by the candidate.

For marks above four to be awarded candidates must make a statement about the purpose of the work. Centres seemed to struggle with the concept of purpose. As it mentions in the Teacher's Guide, the purpose must include identification of an audience and a description of the information to be communicated as well as the reason for undertaking the work. The reasons are often omitted by candidates. Some Centres still seem to think that it is in order to get the candidates to produce a booklet on their favourite football team, music artists or other pastime without giving thought as to why this might be needed.

For marks of seven or higher, candidates must relate the development of the work to the audience. As referred to in the Teacher's Guide, development must be evidenced by at least printouts of three different stages of the development. Where candidates are producing a significant piece of work there will obviously be more stages of development. The audience must be referred to at each stage of development. The purpose of the work is the reason for producing the documents and should not be construed as the task itself. The statements regarding developments cannot be replaced by an evaluation of the final product. Too many

centres are clearly asking candidates to revisit their work and add in statements about developments after the work has been completed. This often results in statements such as 'this will suit my target audience' being appended. Phrases such as 'the picture/work was eye-catching or professional looking' would really apply to the vast majority of publications and so cannot count in this context. In addition, just writing that they have made changes as they felt it would suit their audience is not enough. Candidates need to say why they feel it would suit their audience.

The inclusion of a purpose is a requirement of even the lower mark ranges and failure to provide a reasonable purpose could lead to a large reduction in marks. Most candidates who were successful, concentrated on identifying an audience, usually a specific age group; the purpose of the work being to attract that type of audience. A number of candidates specified an audience far too wide ranging to be categorised when describing the development. Some Centres mistakenly think that the reference in the specification and in the Teacher's Guide to a 'piece of work' includes their documentation; this is not so, checking the work and showing consistency applies to the product, not to the candidate's write up.

For marks above 10 candidates must produce a significant piece of work. A significant piece of work is deemed to be one of at least 8 sides of A4. The 8 sides is the actual product and this does not include accompanying documentation. A number of Centres ignored this. For marks above 13, information from a minimum of two different IT sources must be included in the booklet or presentation. The internet is considered to be only one IT source. Candidates must actually incorporate a minimum of the four pieces of information (one from each source) into their final booklet/presentation and at least one piece should be numeric, at least one should be text and at least one should be an image. In addition, searching using multiple criteria requires the use of Boolean operands or the use of advanced search features. The resulting information found must be included in their final product. If the second source is clipart, the source must be clearly shown. Many candidates just show images and claim they came from clipart. To avoid any confusion, candidates should provide evidence that the work did not come from the internet. When using software packages that have clipart built in it is important to show that the clipart has not come from the internet by making sure, when using Microsoft Word as an example, that the source 'All Collections' is not selected, as by default this option searches the internet. An increasing number of candidates are claiming to have used digital cameras but without supporting screenshots of the uploading process. Without such evidence it could be argued that the image came from the internet.

It still appears that some Centres allowed candidates to spend a lot of time producing a booklet and then, at the end of this process, tried to identify the skills which had been awarded. A more structured approach is suggested whereby candidates are advised how and where they can obtain credit for skills. One simple way of structuring the work is to allow candidates to produce between two and four pages of a booklet confining themselves to the use of in-house clipart and scanned images as their pictures. The candidates can then complete their booklets by moving on to use the Internet as a source of further information. At the other end of the spectrum, as GCSE candidates must work independently, a structure which involves 'worksheets' which clearly define each step in the process and dictate to the candidate what they should do is also advised against. Such an approach or other on-line methods such as writing frames, can limit a candidate's ability to produce their own work.

Again, the single biggest shortcoming in the work seen was the inability of candidates to meet the hyperlinks/refined search criterion, required for marks above 16. It cannot be achieved by candidates simply following a number of hyperlinks. Candidates have to relate their choice of which hyperlinks to follow for their purpose and audience. Many candidates do not refer to their audience when considering which hyperlinks to follow or indeed which information to use as a result of following the hyperlinks. This leads to a reduction in marks. A number of hyperlinks must be followed and the resulting information they find must be used in their final product. The

same is true if candidates use refined searches. There should be several and each refinement should be annotated as to how it is suitable for their audience.

For marks in the top mark range candidates must provide evidence of having used a proof reader as well as a spell checker. A proof reader must be a suitable adult who must be identified. They must then annotate a version of the booklet or presentation to indicate errors in spelling, grammar and factual information and sign that they have done so. It is not sufficient for the proof reader to just sign the work and say they have found no errors. The candidate must then produce a final version of the booklet or presentation with these errors removed. Equally just having some handwritten annotations and a signature does not say who the proof reader is.

### **Additional Skills**

The notes for guidance in the specification clearly indicate that these must be achieved by the candidate referring to their own work and not by quoting unrelated examples.

Health and safety, for example, must be referenced by the candidate to their own work rather than just commenting on perceived good practice. Candidates are confusing errors with problems. An error is accompanied by error messages and these should be evidenced.

### **Project 1b**

A number of Centres are still not following the requirements of the specification that in order for a candidate to be awarded a mark within a given mark range they must match all the criteria within that mark range.

### **Comments on Individual Strands**

#### **Data Handling**

Centres are reminded that in order for a candidate to be awarded a mark within a given mark range they must match all the criteria within that mark range. A number of Centres disregarded this requirement and had their marks reduced accordingly.

There were still a very small number of Centres awarding marks for this strand despite there being little evidence of searches (interrogation) performed on the database used. This leads to a mark of zero being awarded. The evidence required for this is a printout of the matching records.

For marks of eight and above, candidates must produce a manually completed data capture form. This was confused by some Centres as being equivalent to the data entry form as used in packages like Microsoft Access, for example. This is not the case. A data capture form is a grid like table with field names as headings and data copied manually from the collected sources for 14 to 16 upwards or just completed with known data for 8-13 marks. Candidates showing screen dumps of data being entered into data entry forms on the computer do not fulfil this requirement.

For 14 to 16 marks to be awarded candidates must provide evidence of using a range of sources. This must include evidence of the actual magazines or web sites. Printouts must show the data that has been transferred to the data capture form. They must also give reasons for selecting the data for inclusion in the database. The Teacher's Guide for the specification explains in detail what is required. Reasons for choosing fields cannot be based on the proposition that these were what were required by a 'user'. It can be a list of possible questions (queries) which the database is required to answer which the candidate uses to deduce the fields required to answer such questions. It could be a survey of a number of possible users as to what fields would be needed and then deducing from the response what fields are required. For marks above 16, candidates must use Boolean operands in their searches. The criterion

refers to complex searches (plural) and so requires an absolute minimum of two complex searches. A minimum of two different Boolean operands must be used.

Some Centres are still confused over the requirements for validation. Proof that validation has worked is required. This is done by producing screen dumps showing error messages being produced as a result of the candidates setting up their own routines (one is insufficient). The requirement is for candidates to use routines. Just ticking a compulsory field option or 'must be answered' option is not writing a routine. Defining range checks, however, is equivalent to writing a routine. The entry of text into a numeric field does not count; neither does designing field types which limit data entry such as drop down lists. The criterion requires the candidates to write their own validation routines.

A considerable amount of work that was seen lacked annotation by candidates. Many often failed to include a description of the task they were undertaking. For marks above 19, candidates must describe their choice of software in terms of the features required to solve the problem and compare it with an alternative piece of software. Many candidates lose marks because they give a list of features which are not required by the solution; or fail to give a list of features required by the solution; or indeed give a list of features required by the solution but are equally available in the package they are rejecting. If candidates have not specified a task they are unable to relate their choice to the task. It is apparent that many candidates have little experience of using alternative data handling packages to the one they used to create their database.

For marks in the highest ranges, candidates are expected to give reasons why they have chosen the fields included in their database but left out others. Some of the reasons given are rather trivial, often stating what information the field contains rather than the reason why it is needed. They also need to give reasons for their choice of field types and explain their choice of field lengths. A number of Centres think that it is sufficient for candidates to list these rather than give reasons for their choice, this is not sufficient.

For the highest mark range all the required output must be stated. This must be in terms of the format of the output as well. As one of the criteria is to comment on how easy it was to produce tables and graphs, candidates must stipulate these as being part of the required output and then produce this output. This must be done at the outset not as an afterthought somewhere towards the end of the work. This will usually be the **output** from a list of queries which the candidate surmises they will use to test their database. Candidates must relate all the reasons for the choice of all the various features listed in the 26 to 28 mark range to this required output.

## Modelling

Predictions are required at every mark range above seven. Some Centres take the meaning of simple to be just indicating a general increase or decrease in variables. It is expected that even at low levels candidates will quantify these changes to a degree. For marks above 19 candidates are expected to make more complex predictions (the word simple is not used in the teachers' guide at these mark ranges). The requirement for 'use the software to provide the answers required to solve the problem' is that predictions are made.

Centres are still using writing frames as prompt sheets for candidates and worksheets with very prescriptive instructions. As it said earlier in this report, GCSE candidates must work independently, a structure which involves worksheets which clearly defines each step in the process and dictates to the candidate what they should do is advised against. Often this leads to candidates being unable to truly explore the model. More Centres are now aware of what a complex model is but validity of a model is still causing problems. Candidates are required to compare the model with a real life situation in order to secure credit. Candidates who just write about what their model is made up of and state that they have met their original aim do not meet this requirement. Some candidates failed to design a complex model but were still awarded marks above 19. It is not sufficient to make a design and then go on to create a complex model;

the original design should be complex. A number of Centres fail to understand the requirement for justifying the choice of software. Candidates should define their problem and then produce a list of software features required to solve the problem, followed by a description of their choice of software and how well it meets the required features. The description of how they created their spreadsheet should contain a number of screenshots showing how these features were used, and they must also show a number of steps in its creation rather than just writing about the finished model.

## 2359/01 Paper 3 (Foundation)

### General Comments

Very few questions produced no response from candidates. The rubric was followed without difficulty.

### Comments on Individual Questions

- 1 The great majority of candidates scored full marks for this question.
- 2 This question was also answered very well.
- 3 The majority of candidates were able to gain 4 marks. Occasionally two of the items were confused.
- 4 This question was not well answered.
- 5 The application of batch processing was well understood by most candidates.
- 6 (a) Most candidates scored three marks.
- 6 (b) This was a well answered question.
- 7 Some candidates confused RAM and ROM.
- 8 (a) This question was reasonably well done. Most candidates gained one mark for either 'thumbprint already stored' or a 'match' is made with existing data.
- 8 (b) The most popular correct alternative was using eye or retina scans. Voice recognition was sometimes given but did not gain marks as a suitable alternative.
- 8 (c) Many candidates gained marks for recognising the uniqueness of thumbprints.
- 9 There were a large number of correct responses to this question.
- 10 (a) The most popular correct responses were 'robots don't take breaks' and 'robots don't need to be paid'.
- 10 (b) This part of the question was not well answered. The most common response gaining a mark was for identifying that the initial set up costs are high.
- 11 Many candidates scored four marks.
- 12 This question was widely misinterpreted. Most candidates thought coding was used to prevent data being understood. Some gained marks for saying coding reduced the storage space needed, and a few mentioned that it was quicker to enter data.
- 13 (a) Usually one sensor was given, often temperature, but there were few who gained two marks.
- 13 (b) This part of the question was badly answered. Many candidates had a vague idea about feedback but were unable to express it sufficiently clearly to gain marks. A common misconception was that the sensors were controlling the actions.

## 2359/02 Paper 3 (Higher)

There was similar candidate performance compared with 2010 on a paper which allowed all candidates opportunities to display their knowledge.

Most candidates attempted the majority of the questions and made a reasonable effort throughout the paper.

It is, once again, disappointing, however, to see so many candidates failing to answer questions well which only require fairly basic technical knowledge. The majority of candidates appeared to lack a grasp of technical terms.

### General Comments

- 1 This question was well answered with many candidates gaining 4-5 marks. The most common incorrect answer was that modelling was a utility.
- 2 This question was often left unanswered by many candidates. Many candidates just invented names to fit the letters. Few knew the correct terminology.
- 3 (a)(i) Many candidates seemed not to know the correct name of the device they were attempting to give.  
(a)(ii) Many candidates gave one word answers without expanding on what they meant.  
(b)(i) Again, few candidates were aware of the correct terminology.  
(b)(ii) This question was well-answered.  
(c) This question was well-answered.  
(d) Many candidates seemed to be unaware that online shopping co-exists with supermarket shopping. Despite this, there were many good answers, although there were still a number of generalisations such as 'greater unemployment'.
- 4 Many candidates gained a mark for defining each type but most failed to gain the other mark(s).
- 5 Candidates frequently failed to gain more than 1 mark. Most wrote about the advantages of star and bus networks without giving the drawbacks of ring networks, though marks were awarded for inferring these.
- 6 Candidates still find difficulty with this question, frequently showing their lack of knowledge about how a computer control system works. Answers referring to generalisations with little reference to the required temperature or preset value were common.
- 7 Candidates often failed to write about on screen data entry forms and preferred instead to write about database structure including validation, security of data and even the Data Protection Act.
- 8 This question was quite well answered.

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- 9 Candidates scored reasonably well on this question but quite a number tried to describe an expert system rather than answering the question.
- 10 Candidates spent much of their time describing the methods rather than giving the advantages of them. A number of candidates wrote down the disadvantages of the methods thereby not answering the question.
- 11 Many candidates concentrated on one or two methods and were consequently unable to score many marks. Most of the advantages were described well but the disadvantages given were often quite simplistic.

## 2360 Coursework Project 2

As in previous years, the number of centres entering candidates for the January session for this module was very limited with virtually all only submitting work from a limited number of candidates.

Unfortunately, it was found that Centres had often consistently misinterpreted the requirements for a number of the assessment objectives and consequently awarded marks that the moderation process could not support.

Moderators continue to find marks being awarded in the following areas where the required evidence (as defined in previous publications produced by the board and also in training materials) has not been included by the candidates:

- 1 Analysis 2 – Collect Information: there must be supporting evidence that demonstrates the candidate understands the whole process; ie if a questionnaire is to be distributed to users, then there should be a copy of the letter/email accompanying these and a copy of the letter/email that the users sent with the completed questionnaires. If an interview was used, the copies of correspondence used to set up the interview along with interview notes and even a witness statement confirming that the interview took place should be included.
- 2 Analysis 3 – To be awarded the lower marks (one or two), there must be commentary: describing a number of tasks; emphasising the required input to perform the task; the process gone through to find results and the form in which the user requires the answers. Without this detail the candidate cannot be awarded the higher marks in this section, neither can it be accepted that 'thorough testing' (see point 5 later) can be evidenced. The comments here will form the basis of the requirement in the Design section for work to be appropriate.
- 3 Design – as just stated, there is a requirement that all designs must be appropriate. This means that for:
  - (i) Design 1 – any design must allow the system to do what the candidate has commented on in the analysis section (especially in A3).
  - (ii) Design 2 – the user interface designs that would be used to populate a database must include all the fields that exist in the chosen data structure.
  - (iii) Design 3 – all different formats of output required by the tasks listed in A3 must be considered at least once.
  - (iv) Design 4 – comments about relevant software packages should be based on the features the chosen designs require. At the same time, comments about 'Office' packages, virus checking packages and operating systems add no extra evidence that meets these assessment requirements.
- 4 Implementation – for I1 & I2, these must be made as a direct response to 'unforeseen circumstances' found during this process and do not meet the requirements if they show poor design work; eg changing field lengths or adding a field are unacceptable items here.
- 5 Testing – as has already been said, if 'thorough testing' is to be evidenced, then the items commented on in A3 should both be referenced; tests chosen to show the system can, at least, produce answers to these. Large numbers of tests, without reference to these requirements do not provide the evidence to award more than 2 marks here.

- 6 Evaluation – where a candidate has failed to evidence 'thorough testing' then it is not accepted that they can do anymore than meet the one mark criteria, which is to state what their system can do.

Finally, there was evidence which again strongly suggests that there is a lack of accurate guidance being given in a number of centres. It has been consistently stated at the OCR training sessions, over the lifetime of this specification, that to be able to adequately include the evidence required to meet all the assessment objectives, a candidate would be producing a piece of work with between 50 & 60 sides of A4. Where projects are seen that are significantly larger than this, then it is usual to find that time and effort has been wasted including work that meets none of the assessment criteria. As stated in point 3(iv) for D4, the comments about hardware and software that the designed system requires should be based solely on those items directly relevant to the system. It is not necessary for candidates to spend their time commenting on various peripheral devices such as scanners and digital cameras where their system just does not call for these. In the same way, comments about operating systems and virus checking software are not required. However, at the same time, comments must be made based on relevant specific packages and it is not possible to award marks where these have been made at the "Office Suite" level.

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