

GCE

ICT

Advanced GCE A2 H517

Advanced Subsidiary GCE AS H117

Examiners' Reports

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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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Any enquiries about publications should be addressed to:

OCR Publications PO Box 5050 Annesley NOTTINGHAM NG15 0DL

Telephone: 0870 770 6622 Facsimile: 01223 552610

E-mail: publications@ocr.org.uk

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Chief Report

There are three main aspects to a good examination, knowledge, application and exam technique. Unless all three are present the candidate will not gain high marks. The knowledge is a basic understanding of the facts and the specification, it is rote learning and regurgitation. This will assist the candidates in gaining marks in the identify and describe questions.

Within G061 and G063 there are many questions where the candidate is required to demonstrate understanding by applying their knowledge to a scenario. This application of knowledge comes through practice and an understanding of the knowledge.

Exam technique is an understanding of the requirements of the keywords and how to structure an answer. This is a common skill in other subject areas but one that has been lacking in ICT.

Time is another key element to both G061 and G063, time to cover the specification and for the student to mature in their understanding of the subject and the depth of their responses. It is difficult to achieve the depth required in a single term of study.

There have been changes to the submission of G064 with the introduction of the Repository. The Repository has several advantages – environmental, reduction in postal costs and it will allow the candidates to demonstrate their ICT ability with the production of a single report. The use of the Repository is recommended. Whether the Repository is used or not, centres need to be clear which method of submission they have made (G064/01 (Repository) or G064/02 (postal)) to avoid problems in the summer.

G061 Information, Systems and Applications

General Comments

The question paper had a range of questions to enable candidates of all abilities to achieve good marks if they had prepared adequately for the paper. The preparation is not just learning the material but should include sessions on examination technique and looking at a variety of contexts to teach the candidates how to apply their knowledge and understanding.

Many candidates had a reasonable foundation of factual knowledge enabling them to answer these questions well but a significant number failed to express their answers in anything but the vaguest terms and used very little subject terminology. It is important to communicate to the students that the level of response required is greater than that of an average person with an interest. The correct use of technical terms is expected and the answer must make sense within the context of the scenario.

Many candidates lack good exam technique and fail to answer questions fully thereby restricting their maximum to, for example, 2 marks out of the 4 available. This severely limits their achievement over a whole paper and is something that has been a feature of candidates' scripts over several years. Whilst it is encouraging to see that past papers have been completed, there is still the issue of regurgitated answers from these papers being given on the current paper. The questions, whilst looking similar are different. Candidates are also not reading the question correctly – key words such as different and hardware are being missed and this reduces the marks available to the candidate.

Qu	estion	Comments
1	(a)	Many candidates did not give examples, they used single words to identify – questionnaire for example has the potential to be both direct and indirect and it is only when additional words are given by the candidate that it becomes clear whether they understand what the question is asking.
1	(b)	This was another question that required an example and not just definitions of the terms. Candidates that gave scenario based examples scored highly.
1	(c)	By now either the candidate understood the concept of an example or, once again, scored no marks. Definitions abounded but without the example marks could not be awarded.
2	(a)	Some candidates are still under the impression that validation can ensure that the data is correct. However the majority are now able to answer this GCSE based question correctly.
2	(b)	Where the candidate did not confuse validation and verification they were able to obtain marks. It is disappointing to see however that candidates cannot give a description that is of sufficient quality to obtain full marks. There are elements missing and often the level of detail is that if a generic understanding, not of a candidate who has studied the subject.
3	(a)	This was very well answered with most candidates obtaining both marks.
3	(b)	This was very well answered, although some candidates struggled with the definition of software.
3	(c)	This was very well answered with most candidates obtaining both marks.
3	(d) (i)	The majority of candidates were able to identify an appropriate input device.
3	(d) (ii)	Many candidates gave appropriate devices but there was a significant number who repeated their answer from 3di.

Qu	Question		Comments
3	(e)	(i)	ICT requires a certain level of technical knowledge and accurate use of terminology from the candidates. This question is an example of where that terminology was lacking. There is a difference between resize and enlarge. Bitmap images do not necessarily pixelate on resizing as they could be made smaller as well as larger.
3	(e)	(ii)	The explanations were vague and often repeated the answers from 3ei without adding any more information. The candidate who did think through the question and related it to the leaflet often gave an excellent response.
3	(f)		In the past, this question has asked about hardware. Many candidates regurgitated a response they had learnt from a mock examination and gave a hardware based response. The majority of those candidates that read the question gained full marks.
4	(a)		This question was not about the process of normalization, but the advantages of carrying it out. Many candidates gained low marks from identifying advantages but were unable to add the level of detail required to gain the second mark. Many instances of rote learnt answers without understanding were present.
4	(b)	(i)	This was answered well with large numbers of candidates identifying the relationship.
4	(b)	(ii)	This was less well answered with many candidates not understanding the relationship and, from appearances, guessing.
4	(c)		The focus of this question was on creating the database, not using it and candidates that read the question and picked up on this gained marks. General, vague responses did not gain credit.
4	(d)		Many candidates linked this question to validation and gave descriptions of validation techniques that could be applied to form controls without giving examples of their use. Those candidates that correctly identified the control scored highly.
4	(e)		This question was part of question 4. The job that question 4 was talking about was given in the stem to the question – where an appointment has been booked for a customer. It was not to do with employment or a job centre. Candidates that took this path did not do well on this question. Those that followed through from the stem managed a number of marks, but their descriptions were lacking detail.
5	(a)		The majority of candidates achieved one mark for this question. Responses to do with safety and emailing the model were not appropriate – having the knowledge is one thing, to correctly apply it to the scenario is another level of difficulty that many candidates failed to realise.
5	(b)		Workbooks gained more marks than ranges although for both responses there was a lack of understanding and detail about how they could be used.
5	(c)		Many candidates chose VAT for absolute but failed to expand on this to give an example of how it could be used – merely stating that it was static was not enough. Relative was more complicated and often candidates failed to gain credit for their response by failing to give a sensible example relating to the scenario.
6	(a)		Responses that used cut, copy or paste or involved application C opening a file saved by Application A scored no marks. The question was very clear that there was no common format between the applications.
6	(b)		This was very well answered with candidates demonstrating a good understanding of styles.
6	(c)		Many candidates achieved one mark but were unable to achieve the second. A large number of responses gave the advantages and disadvantages of the use of wizards rather than their characteristics.
6	(c)	(ii)	A definition of a macro was not required. The question was to do with writing the report, not printing the report. Answers which were not based on the above were, on the whole, very good.

Qu	estion	Comments
6	(d)	This was poorly done. Sections are a technical term and relate to a specific formatting tool, not just an area on the page – the same goes for frames. There was a lot of confusion between a footnote and a footer with many candidates putting page numbers in the footnote.
6	(e)	This was another question that on the surface seems simple, however it needed a degree of technicality in the answer that many candidates failed to give. Changing a margin can go bigger or smaller, and making it bigger will give less room on the page. Many candidates identified what could be changed but not the change that needed to be made.
7		This question was very well answered with candidates understanding the problems of different standards. Some candidates repeated the question and focused on incompatible rather than applying their own knowledge.
8	(a)	There were two elements to this question – it was based on software methods and it needed to prevent the data being stolen
8	(b) (i)	Candidates were generally comfortable with backing up but less so with archiving.
8	(b) (ii)	The concept of time was often missing from the answer making it inappropriate to archive the suggested data. There were many rote answers based on schools where the candidate had not applied their understanding of archiving to the scenario.
9	(a)	Many responses used the words "to attract an audience" – as given in the question without expanding their response to include how the presentation made us of the sound or how the sound would attract the audience.
9	(b)	The comparison question is showing signs of improvement – candidates are beginning to make a comparison and this is seeing an increase in the number of marks awarded. There are still a large proportion of candidates who describe both without drawing a comparison and time spent on examination technique would be of benefit to them.
10		There were two elements of this question that causes problems. It was based on health and not safety. It required a different solution for each health problem. On the whole candidates who avoided the above did reasonably well, although there are far too many comfortable chairs and unquantified breaks.
11		The extended writing question continues to cause problems. Candidates were often found to have written point, impact and consequence on the paper but seemed to have a lack of understanding of what they meant. This question was not answered in a way that indicated any depth of study or understanding of the issues involved. Candidates were giving statements rather than a discussion. It is continuing to feel as though teachers and candidates are not looking at previous exams for this specification – this style of question and mark scheme is common. The candidate responses that were seen were more suited to describe questions than a discussion. This question requires the candidate, for high marks, to look at the topic under discussion from more than one different point of view. Candidates frequently wrote in very definite terms from one point of view rather than looking at more. Their answers were superficial and did not reflect a depth of study appropriate to this level of qualification. Many candidates focused on possible future developments and gave responses that would assist in gardening rather than the marketing which was the focus of the question.

G063 ICT Systems, Applications and Implications

1 General Comments

Candidates, on the whole, were either reasonably positioned to answer questions based around the technological aspects of the specification, or offered attempts at many of the questions which highlighted a lack of knowledge.

Centres that prepare their candidates appropriately will cover the requisite technical vocabulary and in so doing will give their candidates ample opportunity to demonstrate their knowledge clearly, giving them every chance of gaining maximum marks. These centres are to be congratulated and encouraged to share good practice.

A significant number of candidates still overlook the total marks available for a particular question; they avoid considering the questions' wording and pay little attention to the keywords which should hold an indication of how to structure a response.

Centres should also remind candidates that it is difficult to award marks when handwriting is illegible. Whilst it is common to word process subject assignments, this examination relies upon handwritten communication and the opportunity of practising such responses should be encouraged. Many scripts were poor in this area and had to be interpreted before examiners could even consider the content.

2 Comments on Individual Questions

Section A

Question 1

- (a) Attempts at describing a personnel system saw many responses concentrating upon the functions rather than the role of such a system which limited the available marks. Even then, many candidates seemed unable to distinguish between this and the functions of a payroll system which does not appear within this learning outcome.
- (b) Referring to their answers in part (a), many candidates were able to make appropriate connections and score well by either having learnt or merely guessed the type of documents that may be scrutinised.

Question 2

- (a) A well answered question by the vast majority of candidates.
- **(b)** This question, on the whole, saw many candidates offering accurate answers for the available mark.

Question 3

When focused on the limitations for the candidate, responses often scored well. Many referred, incorrectly, to the clarity of handwriting in the hope of a mark.

Question 4

- (a) (i) This part question was well answered for a single mark. However, some candidates gave examples for a second mark without considering what the example was actually used for.
 - (ii) There was much repetition from 4 (a)(i) and not nearly enough knowledge shown of how protocols are used within a network. Although examples of protocols were often given, their correct function within a network was rarely seen and the technical facets of this learning outcome were not evidenced.
- (b) Answers mainly dealt with unauthorised access or security but fell short of a full description which detailed why this was advantageous. Disadvantages were often well written. The misconception that encrypting data made it less likely to be intercepted was seen too often.

Question 5

- (a) For full marks, a depth of knowledge was needed of the Computer Misuse Act (CMA)(1990). Some confusion with other Acts was evident, especially the Copyright, Designs and Patents Act (1988). Most candidates focused upon 'hacking' and some attempt was made by a good number of candidates to correctly give the provision under which a prosecution would take place.
- (b) In the main, candidates concentrated on intent having to be proven and how accidental intrusion is not only a crime, but a 'get out of jail' card to be used as often as possible.

Question 6

- (a) Despite being a learning outcome within the specification, only a minority actually knew how to resolve this type of relationship. Where diagrams were employed to aid explanation, they were mostly accurate and did much to ascertain candidates' knowledge of the subject.
- (b) The different parts of the process were amalgamated by many, with the given symbols not being utilized correctly. Candidates were unsure of when a process was happening and seemed unaware of the nature of the data stores. As part of the specification, centres need to be assured that candidates are well versed in this learning outcome and the nature of questions it could pose.

Section B

Question 7

This was, generally, a well answered question with the limitations of wireless networking being well documented. Still surprising though, is the number of candidates who give answers such as 'atmospheric conditions' or 'trees' as a limitation of a LAN such as this. Many assumed that the business' location totally precluded them from any form of external communication whatsoever.

Question 8

(a) Few candidates made a link between the mental model of the client and why it is important that this translates to on-screen actions.

(b) This question saw some real and accurate comparisons being made. However, an inaccurate use of 'mental model' was seen when referring to visualisation which suggested some candidates, referred to previous questions for inspiration.

Question 9

- (a) Some good descriptions were offered for this part question which secured both of the available marks. Candidates needed to communicate the idea of data being collected together over a period of time and then processed at once or all together when there was less demand on the system, something eloquently done by many.
- **(b)** Most awards for this part question were for two marks. These were gained for the idea of processing happening at the end of the day when the workings of a system had fewer demands placed upon it. With four available marks, many candidates only gain 2 or 3 marks.

Question 10

- (a) Some confusion was evident here with the contents of personnel systems and payroll systems, perhaps once again referring to the contents of a different question. Centres should explain to candidates that the expansion of an already expanded acronym is unlikely to gain marks.
- **(b) (i)** Good definitions of this method of changeover were given here, yet full descriptions gaining both marks were more of a rarity. Worryingly, many confused phased with pilot as a method of changeover.
 - (ii) Rather than suggesting explanations as to the unsuitability of this method of changeover, too many candidates offered reasons why another named method would prove far more suitable, thus avoiding the answer required.

Question 11

- (a) Many single points were offered by candidates. Many candidates constructed multiple, true comparisons though these were less frequent. The ability to form comparisons was pleasing to see and centres who prepare candidates in this way are to be congratulated.
- (b) Most made statements focused on clarity; easy to read and legibility of style. Few candidates were able to develop answers into just why they were important considerations and form full explanations.
 - This part question, noticeably, saw much repetition of the question's stem. However, this is an approach which only wastes valuable time and an approach that should be discouraged.
- (c) This was a poorly answered question. Candidates either knew little about change management or focused on 'cost of equipment' in an attempt to secure some marks. 'Staff views' is the mark point which proved to be most prevalent, with very little consideration of other factors.
- (d) This part question was, conversely, either answered very well indeed for the majority of marks or very poorly, as if this learning outcome had not been covered in some centres.

Question 12

- (a) Whilst capacity or bandwidth featured prominently, very few candidates were able to achieve further marks by describing just why this was advantageous. Similarly, other learned points about fibre optic cable were not sufficiently expanded to form a worthwhile description.
 - Sadly, the words 'faster' and 'quicker' were seen all too often in an attempt to describe the transmission rate as the volume of data sent per second.
- (b) Authority of use, privacy and access were offered for marks without considering individual department's extension of network facilities and security. Very few candidates showed a full command of the technical aspects of virtual networks.
 - Many interpreted the question as 'use a ... LAN' without considering the words '...virtual network within their...' as well. Definitions were widely offered without consideration for the need of a description, which is the keyword to focus upon in the question. A concern here was the number of candidates who confused a VLAN with an intranet.
- (c) Only a small minority had any idea about the workings of a professional body; this is a learning outcome within the specification and centres should ensure that candidates have had ample opportunity to work on this topic. Many focused on career enhancement through membership but, inaccurately, professional image and post-nominals were offered the most in an attempt to gain marks.

Question 13

Candidates should now be well instructed about the construction of 'discuss' questions. The methodology used by many was admirable. The points to discuss were chosen accurately and with some consideration; many had the ability to detail the impacts, for the user, of software based training. Whilst many candidates are able to detail a single consequence of such an impact. Too many candidates are still, unable to extend their answer beyond these basic impacts and deal with multiple consequences from either a positive or a negative viewpoint. Descriptions of software based training were commonly seen. The impacts and consequences of both viewpoints were rarely evident.

Question 14

Candidates again seemed able to document hardware and software developments within the context of the business' future functioning.

Points made about available technology went on to describe the workings of that particular piece of technology and not how the business would utilise it to ascertain the whereabouts of goods and delivery vehicles to their advantage. This proved, for many, to be a disappointing conclusion to the paper.

G064 ICT Project

General Comments

Many centres focused on traditional databases this session, with some good spreadsheet ideas also being tackled. It was pleasing to see a large number of candidates tackle interesting projects with real clients and real problems.

Candidates produced a good level of detail without the excess seen in the previous session. However, some candidates are still putting items in appendices which should be strongly discouraged by centres. It makes the work difficult to follow and moderate, if parts of the work are stored at the back of the project. In addition, centres would be advised to ask candidates to consider the naming of their sections in the project; it is far easier to follow the project if the candidates use the headings on the mark scheme.

Several centres successfully used the OCR repository for submission of their work and this was well presented on the whole. When submitting this way, some teachers found it easier to submit an extra document with annotation, but equally annotation using comments in a word processing package could suffice. It is helpful if the work could be saved in PDF format prior to submission. This would avoid any software conflict with moderators' computers and also make the files more compressed.

Centres are reminded that the CCS160, Centre Authentication Form, still needs to be completed and uploaded with the work.

- (a) (i) Again, the vast majority of candidates gained full marks on this section and it was completed satisfactorily.
- (ii) This section was frequently over-marked by centres. In order to gain the first mark in this section candidates must consider why they are choosing an interview and consider the why, where, when and who of it. Many candidates are still not giving reasons for the questions they ask, despite the mark scheme clearly stating that the questions should be 'reasoned questions'. In addition many candidates are not thinking through the questions they ask and whether they will genuinely lead them to conclusions about the current system and the new system needs. Too frequently candidates are showing items in the requirements specification which are clearly sensible ideas, but have not been discussed at the investigation stage. Candidates should be discouraged from looking at the project as a 'tick box' exercise (interview done, additional information collected etc) and take a holistic approach to solving the problem.
- (a) (iii) Requirements specifications must contain very specific requirements which can be measured for success during the testing and evaluation stages. Sometimes candidates did not seem sure of what a requirements specification should include.
- (b) (i) This section tended to be much better executed than during the last session.

 Candidates produced fuller designs, which tended to encompass the whole system.

 What was lacking, though, was proper client interaction. Candidates should be encouraged to gain client feedback throughout the process of designing and incorporate this feedback into reworked plans.

- (b) (ii) The project plans were still greatly lacking in detail on the whole. The plan needs to only encompass the software development and test plan stages of the project. The dates should roughly tie in with those in the activity log/diary. The tasks in this plan should be broken down into small pieces and due consideration given to lead and lag times.
- (c) (i) Test plans were variable in quality some were excellent and fully tested the system, whilst others were testing very little of value. One of the big problems seen with test plans was the lack of specific input values and locations and the same with expected outputs. Candidates who produced a linear project with one method of processing for one output, can achieve no more than 2 marks for software development.
- (c) (ii) This section was again, done quite superficially in many cases. Although it is accepted that many candidates will not actually install the software, this section should allow them the chance to carefully consider how they would install it and train the staff. For 5 marks it is expected that candidates will consider the alternative changeover methods, installation processes including how data files will be created or transferred, the timescales and any limitations they may face. They should also be consulting with the client about training needs and carefully considering how these can be met.
- (d) Documentation was done quite well in the majority of cases, with candidates knowing what to include and how to present them. Those that were less well done tended to omit training on parts of the system. Centres are reminded that candidates are expected to show evidence of on screen (not online) help. This can be drawn from error messages, screen tips, helpful advice on forms and other suitable methods of helping the user without them referring to the documentation for all advice. This can be evidenced either within the user guide or from section c. Centres are advised to pinpoint this in their marking.
- (e) This section was also very well done in many cases, with candidates correctly evaluating the degree to which they met the requirements of the client.
- (f) Candidates need to include a diary/log of events from the very beginning to the end of their project. In addition, a useful means of navigating the report is expected along with page numbers, section headings and good quality of spelling and grammar.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

14 – 19 Qualifications (General)

Telephone: 01223 553998 Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

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OCR (Oxford Cambridge and RSA Examinations)

Head office

Telephone: 01223 552552 Facsimile: 01223 552553

