

Information & Communication Technology

Advanced GCE A2 H517

Advanced Subsidiary GCE AS H117

Report on the Units

June 2009

H117/H517/MS/R/09J

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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 syllabus 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 Examiner's Report

This was the first year through the AS course and the quality of work produced overall was good. It is important for centres to get the balance of delivery correct and that less time should be spent on the structured tasks than the theory. The delivery of the theory must also concern itself with the delivery of examination technique. An understanding of key words and an overview of the number of marks for each question are important for the candidates to know so that they can judge both the depth and level of response required.

It needs to be reinforced that no assistance can be given to the students on the structured tasks themselves. Once they have started on a task the teacher cannot give them any help or comments that may assist them, either verbally or in writing. Teachers cannot look at the mark scheme until all work for that task has been collected in. No comments can be made to candidates on the contents of the mark scheme until after the publication of results.

G061 Information, Systems and Applications

General comments

This is a scenario-based paper and as such candidates should give examples, when asked for, in the context of the scenario. In some cases it was evident that the candidates had some knowledge but were unable to apply this knowledge to the context of the questions. Failure to do this leads to candidates failing to be awarded marks for examples.

The examination technique of many candidates hindered their ability to score marks – centres must practise examination technique and assist the candidates to understand what is required by the command words such as discuss, explain, describe, state and state

There appears to be a general lack of knowledge of technical terminology relating to applications. There is no doubt that candidates are able to manipulate applications in a practical manner but are unable to apply their practical skills in a theoretical situation.

It is important that all areas of the specification are covered to ensure that candidates have a wide range of knowledge.

This was a relatively straight forward paper with some questions which all candidates should have been able to attempt and others where more able candidates had opportunity to show their knowledge and apply their learning.

Qu 1a The majority of candidates were able to gain at least 2 marks for this question, by giving an example of data and then discussing how structure or context could be added, and/or how this made the data into meaning. Some candidates gave general textbook answers but did not give the required example. There was also a lack of contextualisation of the response.

Qu 1b A number of candidates could get the first 2 marks for identifying 2 advantages but less were able to go on and achieve the higher marks for 'describing' the advantages. Some very good answers were seen.

Qu 1c The majority of candidates scored 1 mark for comparing static and dynamic data in brochures and on the internet, in terms of the internet being more up-to-date. However, many candidates were not able to present both sides of another comparison, often stating one-sided facts which were not awarded marks. There is a need for both sides of a comparison being needed for a mark.

Qu 2a A straightforward question; however, many candidates only scored two marks because they put house number as a 'number' data type. Some candidates stated 'number' rather than specifying 'real' and therefore did not gain the mark.

Qu 2b(i) A straight forward question, which many candidates gained the mark for, although a large number of candidates still put that 'verification makes sure data is correct'. Text book definitions must be learnt.

Qu 2b(ii) This was another straight forward question where most candidates were able to score both marks . Even lower ability candidates could score 1 mark from an answer about 'checking'.

- Qu 2c(i)** Many candidates managed 1 or 2 marks from an explanation about tables containing records and records containing fields, or from some information about a record being a row or a field holding an individual item of data. Some candidates found it difficult putting into words what was really a straightforward definition. If the use of a diagram helps the candidates then they should be advised that as long as it is labelled it is a perfectly acceptable method of answering.
- Qu 2c(ii)** The higher scoring candidates gave good answers relating to referential integrity or removing data duplication.
- Qu 2d** A challenging question, to which the majority of candidates put answers relating to normalisation being difficult to understand or to do. Those candidates who had clearly learnt about normalisation gave good answers.
- Qu 2e(i)** Most candidates scored full marks on this question. The term 'parameter' was not often used, with candidates having to describe rather than using the correct term.
- Qu 2e(ii)** Not many candidates were able to score marks here, despite having just discussed the difference between the 2 types of queries in e(i).
- Qu 3a** Most candidates were able to name 2 input devices, although a few had not read the question carefully and named output devices. Many candidates were able to score all 4 marks here. Marks lost were for a lack of contextualisation of the use of the device.
- Qu 3b** This question was not very well answered by the majority of candidates who tended to repeat the question. Candidates need to understand the difference between questions that ask for 'features' (noun) and those that ask for 'characteristics' (adjective): in this instance, the features (windows, icons, menus, pointers) had already been given and the question was asking for the characteristics (what it does/how it does it) of the interface, i.e. how the interface works.
- Qu 4a** A good number of candidates were able to score 3 marks for stating 3 things that an online booking system does, although the difference between features and characteristics again let some candidates down – some also gave advantages rather than characteristics. Not all those who achieved 3 marks were able to go on and describe the characteristics for the other 3 marks.
- Qu 4b** This question was generally well answered with most candidates knowing what would make a good data-entry screen. Some gave answers relating to the data design, rather than the design of the screen.
- Qu 5** Another question which was generally well answered, with the majority of candidates being able to gain most or all the marks through good descriptions.
- Qu 6** Very few candidates gave answers relating to the airline, with the majority giving vague answers about how a lack of standardisation affects communication. Some candidates repeated the communication answer in several different ways.
- Qu 7a** This was generally answered quite well with most candidates being able to identify a consistent layout and many going on to add another reason.

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- Qu 7b** Many candidates gave 'quick' or 'easy' as answers which were not what was expected at this level. A lot of answers were definitions of wizards, rather than applying them to the creation of the master slide.
- Qu 7c** Most candidates answered both parts to this question well, showing they understood the features of presentation software.
- Qu 8a** Some candidates were able to gain 2 or 3 marks for this question; they sometimes presented confused answers but did show understanding of the process. A number did not show any understanding of the concept.
- Qu 8b** Another straight forward question, generally quite well answered although some candidates misinterpreted the question and thought it was asking about the advantages for the audience watching the presentation.
- Qu 8c** This was a generally well answered question with the majority of candidates showing knowledge of vector graphics. Very few went on to give an evaluation and make a judgement as to the suitability.
- Qu 9a** Very poorly answered. Whilst many candidates understood what cartography was, they weren't able to show they knew what a cartography graphics library was to get the marks here.
- Qu 9b** A generally reasonably answered question, even if candidates had not gained the marks for 9a.
- Qu 9c** This was generally well answered with many candidates understanding the need to change transition and to add buttons. However, very few gained more than 2 marks.
- Qu 10a** A question which required quite a bit of application of knowledge to produce relevant examples. Where candidates clearly understood and had learnt about spreadsheet uses they were able to give good examples; others seemed to be guessing and therefore gave vague answers. Most of the definitions were very poor, and examples often did not relate to the wages spreadsheet.
- Qu 10b** As with 10a, definitions were not as good as they should have been, and candidates were not good at giving examples related to the wages spreadsheet. Many thought that VAT was part of a calculation involving wages.
- Qu 10c** Most gained at least one mark in this question, generally based around mistakes on data entry.
- Qu 11a** Candidates had often learnt the various acts and were able to repeat the principles but were unable to apply their knowledge to the question set.
- Qu 11b** Some answered this question well, mostly by relating to the principles of the DPA.
- Qu 12** Generally, this question was well answered, although there were quite a lot of candidates who didn't know what biometric security was and spoke about passwords. Candidates struggled to give the detail required for 3 marks.
- Qu 13a** A very straightforward question, where most candidates were able to gain full marks.

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Qu 13b Another straightforward question which most candidates gained full marks on. However, a significant number still gave too vague answers, eg 'take a break and walk around'

Qu 14 This type of question is the final question on the paper and will remain so for many sessions. Whilst most candidates realise that 'discuss' questions necessitate at least two viewpoints, nearly all responses were a succession of identified impacts. Few candidates were able to expand upon these impacts and develop an answer that included a progressive explanation of just why they were advantageous or disadvantageous.

Discussions with very little substance left no reference material upon which to base a satisfactory conclusion. The resultant weak ending was, too often, not worthy of an award.

G062 Structured ICT Tasks

General comments

The presentation quality of candidate work was very good. However it was noticeable that many centres had printed the work in colour, which is not necessary. Provided that the work is annotated, there is no need to incur the additional printing costs of using colour.

Some candidates had provided additional evidence which was unnecessary for the tasks. Unless the task clearly states 'provide evidence of every stage of development during the creation of' there is no need to produce this type of evidence. Evidence of the final product is all that is required.

Candidates need to be made aware of the need to check through the whole of the question to establish what the user requirements are for the tasks. Evidence suggests that many candidates only refer to the immediate question rather than also checking back through the information which is given prior to the question.

Some centres need to take more care with the marking of candidate work. The mark scheme is not a guide but a final document. Where the marking point requires evidence on a number of items, all of the bullet point indicators must be met to gain the mark. If any are missing, the mark cannot be awarded.

The level of teacher annotation to indicate where and why the mark had been awarded differs from centre to centre. It is recommended good practice to follow the guidance on marking work, as indicated on the front cover of the mark scheme, which states *'If a candidate meets the requirements for a mark then tick the box next to that mark. You may use the numbers on the left hand side of the tick boxes to cross-reference evidence on the candidate's work.'*

There were few centres which sent work in bulky ring binders, large comb binders or plastic wallets – please do not do this. The tasks can be bound with a treasury tag, which should indicate to candidates that there is no need to produce unnecessary additional evidence.

- 1a (i) (ii)** The majority of candidates were able to gain full marks for this task, by showing the routine to remove red eye and to set the photograph resolution to 90w x 120h.
- 1b** Many candidates were able to gain full marks for this task, by creating the report to show the details and correct photograph for the 10 staff. Some candidates provided additional evidence which was unnecessary by showing every stage of development during the creation of the report. Candidates who failed to gain full marks either displayed truncated data (usually the email address) or they failed to show all 10 staff.
- 1c (i)** Many candidates were able to gain full marks for this task, by creating an individual badge for each member of staff with their correct photograph.
- 1c (ii)** Many candidates were able to gain full marks for this task, by showing how the photo field was used on the badge to prevent having to use copy and paste for each one. Some candidates provided additional evidence which was unnecessary by showing every stage of development during the creation of the badge.

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1d Many candidates scored at least half marks for the creation of help sheets. Some candidates failed to produce a stand alone document (i.e. it could be handed to a member of staff) by including evidence of the previous question on the first page. Candidates who failed to gain half marks usually failed to provide clear instructions:

- Where to locate the database file + filename to add an additional member of staff. Too often the instructions started at the 'open table' level.
- How to search for a member of staff to print one badge only. A surname search would not be sufficient for the task as there may be two customers with identical surnames eg Martin.

2a (i) A straightforward task; with many candidates gaining at least half marks for the design specifications and layout of the contact form webpage. However some candidates either failed to include the design specification for the buttons or they did not include the cancel/clear button.

2a (ii) Many candidates were able to gain at least half marks for the design layout of the website. Some candidates correctly linked the pages and the external link but failed to indicate the level of the link (one way or two way). Few candidates included the detail to show the links from both submit and cancel buttons, with many ignoring the cancel button routine.

2b Some candidates provided additional evidence which was unnecessary by showing every stage of development during the creation of the WebPages. Evidence of the final product is all that is required. Many candidates were able to gain full marks for this task. Some candidates failed to meet the full requirements by leaving one item off a page with the most common error being the failure to include instructions or the cancel button on the contact form.

2c This task was not very well answered. The mark for the evidence of the creation of the absolute link can only be awarded if the link is shown to be www.comebacktocarpet.com (a redirect) which was given in the task. Many candidates showed the link to www.carpetfoundation.com which is not acceptable.

2d This task proved to be one of the most demanding for many candidates, probably because it was a theoretical task which they did not have to follow through. Despite being informed not to include the first example or any timing tests, some candidates included them.

Test plans must be specific so that they can be followed through by a third party. Inputs and outcomes must be precise to enable the tester to clearly state if the test has passed or failed the user requirements.

Some candidates were able to gain at least half marks, but many found it difficult putting into words what was really a straightforward requirement. Candidates used inadequate phrases like

- 'fill in' – without providing the data to be input
- 'click on all the links and check that they open the correct pages' is too vague. How would they know if the correct page has been opened?
- 'the carpet foundation page will be displayed'. How will the tester know that the link has displayed the correct carpet foundation page? It will pass the test if the link connects to www.comebacktocarpet.com
- 'check the spelling'. Spell check tests are too vague unless the tester has a list of text to test the spelling against – else how would they know if a spelling is correct or not.

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- 3a** Many candidates were able to gain high marks for this task, by creating the spreadsheet data entry form. Candidates who failed to gain full marks miscalculated the gripper strip price, the carpet area or the fitting price. Some candidates did not recognise the need to have 'not required' in the underlay drop down list.
- 3b** Many candidates gained half marks or more for the formulae or functions. However, few candidates failed to provide evidence of rounding on a financial calculation (which was one of Jade's requirements; stated on the third line of the task). Some candidates failed to provide sufficient evidence to prove that the formulae or functions were implemented. If the evidence is produced in a table it will fail to gain the marks – row and column evidence is required as a minimum.
- 3c** Many candidates gained half marks or more for the technical documentation. Some candidates failed to provide the necessary level of detail to allow a third party to make changes to the system. Some candidates had written the evidence as 'I did this.... Then I did that...' Although they did not lose marks in this instance, they will need to bear this in mind when creating documentation at A2 level.
- Few candidates gained the more demanding marks for providing sufficient evidence of:
- The calculation for fitting, while in a hidden state, has a value of zero or is excluded from the final total.
 - Excluding the input areas from the password protection process.
Password protecting the whole data entry sheet will not be appropriate for the user, unless the sheet being protected contained the price data only.
- 4a (i)** The majority of candidates were able to gain full marks for this task, by producing evidence of the implemented ERD.
- 4a (ii)** Many candidates gained at least half marks for the data types and primary keys. Some candidates used text rather than currency, or they failed to make the customer name or address atomic fields.
- 4b (i)** This task was generally well answered with most candidates knowing what would make a good data-entry screen. Many candidates were able to gain full marks for this task, by producing the data entry screen displaying the correct information from the task example. Some candidates failed to include the logo which would make it corporate.
- 4b (ii)** Many candidates gained half marks for the task. Many failed to include an identifying field such as the customer id or the postcode in the drop down list.
- 4b (iii)** Candidates who successfully created the data entry form without errors were able to provide evidence of the calculations used and could access the full marks for this task.

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- 4c (i) (ii)** This task was not very well answered. Although, candidates were able to gain half marks for the task there was evidence of a lack of understanding between the different levels of field, table and form validation.
- Few candidates recognised that the date validation in task (ii) must be applied either at form level or at table level. At field level the validation will not work. Many candidates had not met both requirements, where the validation had to include the rule > order date and also > today's date; they usually only showed one part.
- 4d** This task was not very well answered. Although, candidates were able to show evidence of the tests being applied, few provided the evidence as specified in the task. The testing in section (d) requires inputs and output to be **clearly labelled** to gain the marks. 'Ringing' the values is not sufficient as it does not differentiate between the inputs and output. In many instances the candidates made no attempt to indicate the input and output values.
- 4e** This question was generally well answered with candidates able to gain half marks for the task. Some candidates failed to recognise that the tests were going to be run on 6th June 2009 and consequently their fitting date tests would not work if they included an order date before the test date.

Grade Thresholds

Advanced GCE ICT (H117 H517)
June 2009 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
G061	Raw	120	70	61	53	45	37	0
	UMS	120	96	84	72	60	48	0
G062	Raw	80	66	58	50	42	35	0
	UMS	80	64	56	48	40	32	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
H117	200	160	140	120	100	80	0

The cumulative percentage of candidates awarded each grade was as follows:

	A	B	C	D	E	U	Total Number of Candidates
H117	5.8	18.3	38.2	60.8	79.9	100	4936

4936 candidates aggregated this series.

For a description of how UMS marks are calculated see:

http://www.ocr.org.uk/learners/ums_results.html

Statistics are correct at the time of publication.

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

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