

Applied ICT

Advanced Subsidiary GCE (Double Award) **AS H315**

Advanced Subsidiary GCE **AS H115**

Mark Schemes for the Units

June 2006

H115/H315/MS/R/06

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by Examiners. It does not indicate the details of the discussions which took place at an Examiners' meeting before marking commenced.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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Advanced Subsidiary GCE ICT (H115)

MARK SCHEMES FOR THE UNITS

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**Mark Scheme G041
June 2006**

Marking tasks

All papers allow marks for the pre-release tasks:

- indicate clearly with a tick (✓) where each mark is awarded – if appropriate
 - count the number of ticks and enter the number in the Tasks boxes on the front of the question paper.
- graded response tasks -indicate clearly how a mark band has been achieved
 - AO4 + 1/2/3 – identifies mark for evaluation (1-3 marks)
 - QWC + 1/2/3 – identifies mark for QWC (1-3 marks)
 - CS – response has been applied to case study
 - P/E/+/- - identifies points/expansions, positive and negative points
 - H/M/L + mark – identifies mark band and mark for content
 - add AO4, QWC and H/M/L mark together to get total mark for the task and enter in the Tasks boxes on the front of the question paper
- indicate that each page has been looked at by putting a diagonal line across the bottom right-hand corner of any page where no marks are awarded

Marking the questions

Only answers to questions written on the Question Paper should be marked.

Indicate clearly with a tick **exactly** where each mark is awarded. The number of ticks must equal the number of marks.

Write the number of marks from the question paper in the right-hand margin level with the bottom of the lines/space for the answer.

Make sure you do not give marks twice for the same points or exceed the number of marks available. Write **Max** next to the last tick to indicate where the mark limit for the question/part question has been met, especially if there are further points worthy of credit.

Total the marks for the whole question (**not** part questions) and write this in a circle, in the right-hand margin of the question paper, at the end of the question. There should be a circled mark for each question.

Mark any answer that is clearly wrong with a cross (✗).

Draw a line on the right-hand side of any answer that does not contain any points worthy of credit and/or use the abbreviations provided. It must be clear that you have read **all** the answers given.

Do not write anything on the question paper or pre-released tasks other than the approved abbreviations given over the page.

^	Something vital to the mark point has been omitted.
BOD	Benefit of the doubt given.
NBOD	Benefit of the doubt not given.
CON	Candidate contradicts him/herself.
NAQ	Candidate has not answered the question as set.
MTP	Candidate has missed the point of the question.
W	Candidate is working towards a mark but has not given enough to receive credit at this point.
NE	Not enough for the candidate to receive credit.
TV	Answer is too vague to receive credit.
FTC	Follow-through credit. When an earlier wrong answer has been penalised, this may be used to show that credit can now be given to a part of the script which depends on that earlier wrong answer. This avoids penalising a candidate twice for the same error, but <u>should only be used where specified by the PE.</u>
MAX	Shows that the maximum number of marks for a part-question or question has been awarded (even though the answer may contain further correct points).
R	The point repeats one already awarded credit.
JE	Candidate has <i>just</i> given enough to be awarded a mark.

Examiners may also underline the key words or phrases that contribute to the answer being worthy of credit or which confirm that the answer is wrong. However, care will be needed as candidates often use underlining to indicate an answer in pre-prepared material. Some also use red ink for this.

Transferring marks

Transfer the circled 'whole question' marks to the appropriate boxes on the front of the question paper.

Total the marks and enter this number in the Total box.

Check you have transferred and totalled the marks correctly.

Get your checker to check that

- the number of marks awarded for each task/question/part question equals the number of ticks
- task and question totals are correct
- marks are correctly transferred to the front of the question paper
- the question paper total is correct.

Transfer the totals onto the Centre MS2, taking care that the correct mark is written beside each candidate and that the lozenges are filled in correctly.

Get your checker to check that you have completed the MS2 correctly.

Send MS2s to Cambridge as soon as they are ready using the labels provided– you do not need to wait for the batch dates.

Never send scripts and MS2s in the same package.

If you are unsure what to do at any stage:

- look in the Instructions for Examiners handbook
- look at the Marking Guidelines for ICT Examiners
- contact your Team Leader, Principal Examiner, Chief Examiner or the ICT Subject Team for advice.

There are 100 marks available for this test. They are allocated as follows:

- Tasks 2 and 3 30
- Section A of the test 50
- Section B of the test paper 20

Task 2

1 mark each for boxes labelled

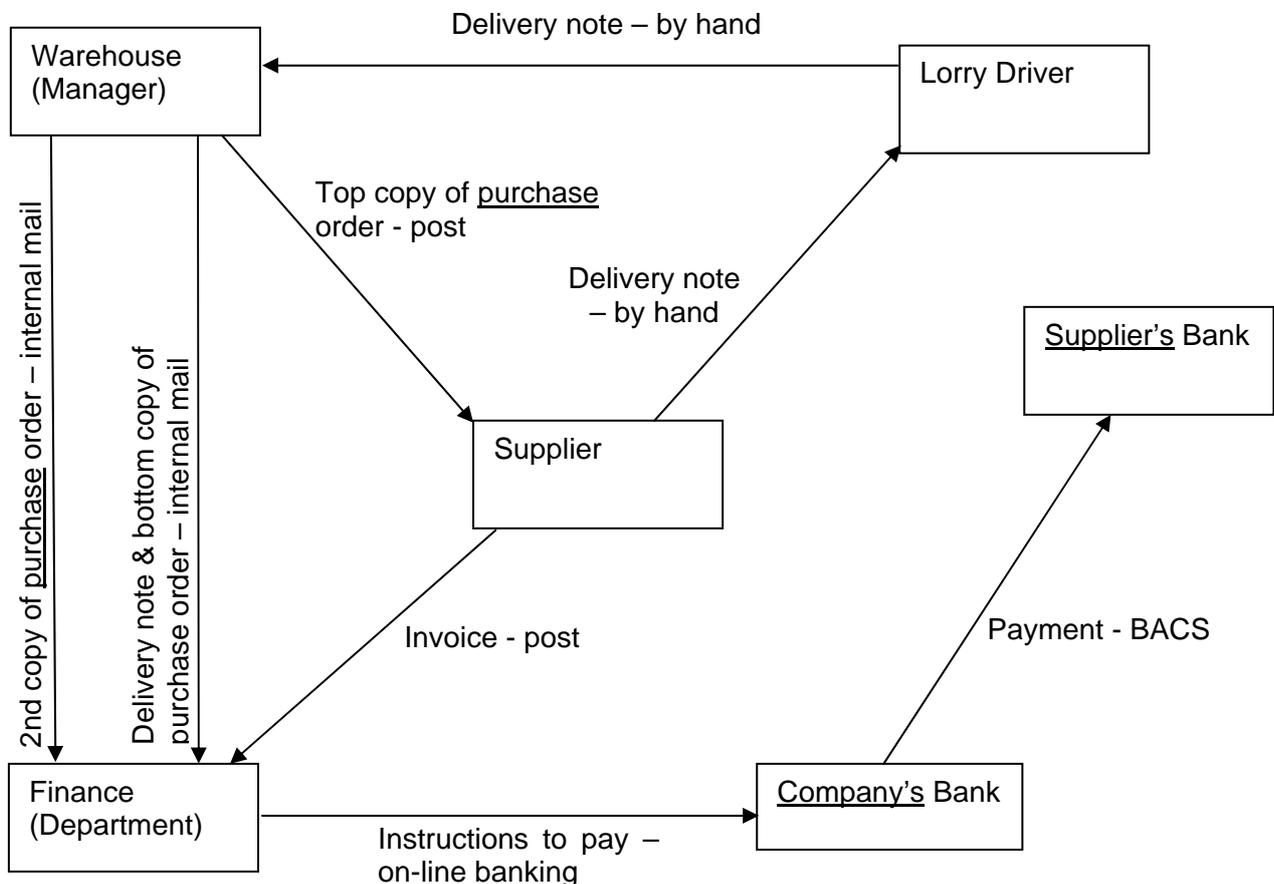
- Warehouse (Manager)
- Supplier
- Finance (Department)
- Lorry Driver
- Company's bank
- Supplier's bank

plus labelled arrows to show the following information flows (1 mark each) and methods (1 mark each)

Max 15 marks.

Note:

- Arrows should only be awarded points if they are drawn to and from the correct boxes.
- Marks may be awarded for unconventional diagrams provided they isolate the senders and receivers of information.
- Do not award marks for flow diagrams or series of text boxes linked by arrows.
- Marks cannot be awarded for 'How' if the information is not identified.
- Labels should not be awarded marks if they are contained within the description of a process.
- Supplier's or Company's missing, treat as omission providing not ambiguous



[15]

Task 3

The quality of written communication is assessed through this task.

QWC Marks	Guidance
3	Virtually free of errors of grammar, punctuation and spelling
2	A few errors in grammar, punctuation and spelling may remain
1	Errors in grammar, punctuation and spelling may be present.

AO4 is assessed through this task

AO4 Marks	Guidance
3	A strength and a weakness in the method(s) used identified or suggestions for improving own performance
2	A strength <u>or</u> a weakness in the method(s) used identified.
1	Some comment made on method(s) used.

Tiered response based on:

Coded	Marks	Guidance
H	7-9	An explanation of the impact of the use of mobile communications on the <u>Party Organisers</u> at Peta's Party Plan relating to advantages and disadvantages
M	4-6	An explanation of how Peta's Party Plan Party Organisers could use mobile devices
L	1-3	Clearly expressed basic descriptions of mobile devices not applied to Peta's Party Plan

Annotation:

- D – description – what is mobile communications
- A – application – how PO can use them. Must relate to what they actually do
- I – impact (on POs) +/-
- NR – not relevant e.g. impact on company/environment rather than POs

To include consideration of:

Application

- Remote access to server by party organisers
- Use of mobile phones to contact whole of venues etc
- Use of PDA to keep diary etc
- Use of laptop to enable access to venue/entertainer details
- Use of sat nav to locate venues etc

Impact

- Location and pattern of work
 - Work remotely
 - Personal flexibility
- Changing work skills
- Retraining
- Effect on employees to include
 - Social aspects – motivation, job loss, job security, reduced social interaction
 - Balance of responsibility
 - Leisure time
 - Stress

Section A

- 1** one functions and matching task:
- administration (1) plus three of:
 - taking details of party enquiries (1)
 - entering details in work-processed template (1)
 - emailing party enquiry to sales (1)
 - keeping records of hours worked (1)
 - removing cash etc from EPOS terminals (1)
 - taking a record of daily transaction and checking against money taken (1)
 - reporting discrepancies to manager (1)
 - emailing details of staff hours and money taken to Head Office (1)

1 mark for function plus 1 mark for each task to a maximum of 3

[4]

- 2** Any four of
- keeping records of financial transactions (or an example)
 - paying invoices
 - produce monthly and annual reports
 - produce annual accounts for Inland Revenue
 - produce quarterly VAT returns
 - arrange payment of salaries into staff bank accounts

1 mark per point to max of 4

[4]

- 3** Any two of
- Chief Accountant
 - HR Manager
 - Operations Manager
 - Warehouse Manager

1 mark each to max of 2

[2]

- 4 (a) Any three
- date of party
 - number of children
 - age range of children
 - item code
 - occasion
 - theme
 - venue
 - type of food
- 1 mark each [3]
- (b) Administration assistant (1) writes down customer requirements (1) on party enquiry form (1) enters into word-processed template (1) attached to email (1) sent to sales department in Head Office (1) [5]
- (c) Any three of
- retrieve cost of each item
 - multiply price per child by number of children
 - add cost of venue
 - add cost of entertainment } OR add item cost
 - calculate/add VAT
- 1 mark each to max of 3 [3]
- (d) Any two of
- quotation
 - detailed requirement list
 - invoice
- 1 mark each to max of 2 [2]
- (e)
- post
 - internal mail
- 1 mark each [2]

- 5 A description that includes at least one point from each section to a maximum of 10.
- hardware**
- EPOS terminal (1) with barcode reader (1) chip and pin card reader (1) connected to server (1) router provides broadband connection (to Internet) (1)
- software**
- (stock) database (1st mark) stored on server (1) record of all stock held (1)
- input data**
- product code/number (NOT barcode) (1st mark) by scanning barcode (1)
 - quantity (1st mark) entered using keypad (1)
 - amount tendered (1)
 - PIN (1st mark) entered using keypad (NOT keyboard) on card reader (1)
- output**
- product description and price (1st mark) displayed on (two) screens (1)
 - cash receipt (1st mark) showing product descriptions/price etc (1)
 - card receipt (1st mark) showing card details/amount debited (1)
 - transaction slip (1st mark) for customer to sign (1)
- processes**
- look up product description and price (1st mark) from stock database (1)
 - multiply price by quantity (1)
 - add item totals (1)
 - subtract total due from amount tendered (1)
 - authorise card payment (1)
 - subtract from stock database (1)
 - compare quantity with re-order level (1)
 - flag record if re-order level reached (1)

To achieve maximum marks there must be at least one point from each section.

[10]

- 6 (a) Any five of:
- strengths
- template for entering bookings
 - (sales order processing) system holds price data
 - looks up and calculates costs when requirements entered
 - creates quotation and invoice
 - all staff in head office have access to LAN
- weaknesses
- customer must visit shop
 - administration assistant collects information by hand
 - administration assistant keys in data
 - data re-keyed by member of sales staff
 - availability not confirmed until booking reaches Head Office
 - use of internal mail/post/fax to transfer information.

1 mark per point to a max of 5 (maximum of 4 for either strengths or weaknesses)

[5]

- (b) Any suitable suggestions

e.g.

Improvement

- use an on-line booking form/enter details directly into computer
- enable on-line checking of availability
- provide party organisers with access to customer bookings on server
- use EDI or email to communicate with venue etc.
- use a PDA to take down customer requirements
- backup

Problems/implications

- would need to set up secure website
- need to pay someone to design/maintain website
- availability dependent on external factors
- someone would need to keep website updated
- venue etc. may not have facilities for EDI/email
- party organisers could change bookings
- need computer on shop floor
- cost of equipment

Benefits

- do not need to pass paper
- do not need to re-enter data into sales order processing system
- less delay due to post etc.
- customers can book from home/do not need to travel to shop
- customers know their requirements are available
- less errors inputting data

1 mark per point to max of 5 – for full marks to be awarded there must be at least one point from each section

[5]

- 7 (a) Data Protection Act [1]
- (b) Any three of:
- must register (with Information Commissioner)
 - must process data fairly and lawfully
 - must only use data for the specified purpose
 - must ensure that data is adequate, relevant and not excessive for the purpose
 - must ensure data is accurate and that it is kept up to date
 - must not keep data longer than necessary
 - must only process data in accordance with data subjects rights
 - must protect data against unauthorised or unlawful processing, accidental loss, damage or destruction/must keep data secure
 - must not transfer data to countries that do not provide adequate data protection.
- 1 mark each to max of 3 [3]
- (c) Any one of
- the right of access to personal data
 - the right to prevent processing that is likely to cause damage or distress
 - the right to prevent processing for the purposes of direct marketing
 - the right to have inaccurate data corrected, blocked, erased or destroyed
- 1 mark [1]

Section B

- 8 (a)** Any two of:
- gain unauthorised (1) access to computer material (1) - allow hacking (1 mark max)
 - gain (unauthorised) access to computer material (1) with the intent to commit further offences (1)
 - carry out unauthorised (1) modification of computer material (1) - allow viruses (1 mark max)
- 2 marks each to max 4 **[4]**
- (b)** An explanation that includes three of:
- difficult to prosecute hackers and virus writers (1) under existing legislation (1)
 - hackers can now be prosecuted (1) if they attempt to access a computer system (1)
 - they do not need to be in this country (1) providing the targeted computer system is (1)
 - people who spread viruses can be prosecuted (1) if they intend to modify the content of a computer system (1)
 - this does not have to be directed at a specific computer (1) or a specific program or data (1)
 - increased access to ICT (1) leads to more unauthorised access (1)
 - transmission of viruses (1)
 - increase in computer based crime (1)
- 2 marks each to max 6 **[6]**

- 9 (a) Any two of:
- employee number
 - tax code
 - NI number
 - hours worked
 - hourly rate
 - annual salary
 - pension contributions
- 1 mark each to max 2 [2]
- (b) A description that includes:
- look up employee record
 - multiply hours worked by hourly rate
 - divide annual salary by 12
 - calculate tax due based on tax code
 - calculate NI due
 - subtract tax and other deductions
 - subtract pension contributions
 - add overtime/expenses
- 1 mark each to max 3 [3]
- (c) payslip/P45/P60 (1)
plus description of content *such as*
- employee name and address
 - employer details
 - wages and deductions (for current month)
 - total paid in year
 - total deductions in year
 - employee National Insurance number
- 1 mark each to max 2 [3]
- (d) **organisation** – Inland Revenue (1)
purpose – any one of
- to receive tax codes
 - to notify amount of tax paid
 - to notify amount of NI contributions
- 1 mark
or
organisation – bank (1)
purpose
- pay money into account via BACS
- 1 mark [2]

**Advanced GCE Applied ICT (H115/H315)
June 2006 Assessment Series**

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
G040	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G041	Raw	100	74	66	58	50	43	0
	UMS	100	80	70	60	50	40	0
G042	Raw	50	43	37	32	27	22	0
	UMS	100	80	70	60	50	40	0
G043	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	0
G044	Raw	50	41	36	31	26	21	0
	UMS	100	80	70	60	50	40	0
G045	Raw	50	42	36	31	26	21	0
	UMS	100	80	70	60	50	40	0
G046	Raw	50	42	37	32	27	22	0
	UMS	100	80	70	60	50	40	0
G047	Raw	50	43	38	33	28	23	0
	UMS	100	80	70	60	50	40	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
H115	300	240	210	180	150	120	0

	Max Mark	AA	AB	BB	BC	CC	CD	DD	DE	EE	U
H315	600	480	450	420	390	360	330	300	270	240	0

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

	A	B	C	D	E	U	Total Number of Candidates
H115	3.7	15.2	35.4	59.8	79.7	100.0	6792

	AA	AB	BB	BC	CC	CD	DD	DE	EE	U	Total Number of Candidates
H315	1.3	4.7	8.5	14.9	25.9	38.8	54.0	68.5	81.6	100	1018

7810 candidates aggregated this series

For a description of how UMS marks are calculated see;
www.ocr.org.uk/OCR/WebSite/docroot/understand/ums.jsp

Statistics are correct at the time of publication

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