AQA

GCSE

Business and Communication Systems

413009 Using ICT in Business
Mark scheme

4130
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Version 1.0: Final Mark Scheme

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk.

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

1 (b) *Jack Stanway has booked CH&T to provide afternoon tea for his grandmother's 90th birthday party on 1 September 2016. His address is 16 Fir Tree Lane, Shefford, WB12 7GT and his telephone number is 07378 198071. There will be 60 guests and the total value of the order is £650.*

Add this data to the file as a new record.

[3 marks]

AO1   Data is added as a new record (1)
AO1   Data is added to each field (1)
AO1   Data is correctly entered (1). Ignore the ID field – regardless of whether it contains appropriate data or not.

Customer	Street	Town	Postcode	Telephone	Function	Order Date	Guests	Order Total
Jack Stanway	16 Fir Tree Lane	Shefford	WB12 7GT	07378 198071	Afternoon tea	01/09/2016	60	£650.00

1 (c) *Jack Stanway is the first personal customer for CH&T. Add a field to the database so that Leanne will be able to see which are business customers and which are personal customers. You should:*

- *add a new field*
- *give the new field an appropriate fieldname*
- *choose a code to represent business customers and a code to represent personal customers*
- *enter data in the new field for Jack Stanway and for the first 5 business customers.*

[4 marks]

AO1   New field is added – data is in the field (1)
AO2   New field has an appropriate, fully visible fieldname eg "Type" (1)
AO1   Data identifies business **and** private customers accurately (1)
AO2   Appropriate coding is used eg B, PC, Bus, "Per, Ind, Pri or similar so that the understanding of coding is obvious (1)

ID	Customer	Street	Town	Postcode	Telephone	Function	Date	Guests	Order T	
1	Leigh Printworks	8 Fields Row	Shefford	WB12 9MN	01632 418775	Dinner	05-Aug-15	12	£300.00	B
2	Swaverly Recruitment	62 Wandsworth Road	Wardbridge	WB5 5CW	01632 850134	Breakfast	07-Jul-15	36	£300.00	B
3	Priesty Walker Cars	Priesty Lane	Faverton	FV2 2RG	07325 629411	Buffet	31-Jul-15	200	£2,060.00	B
4	Weston Talent Agency	21 Laine Avenue	Suttenham	FV5 4ST	01632 890012	Buffet	30-Jun-15	40	£360.00	B
5	Bright's Bags	312 Hall Street	Wardbridge	WB1 5JD	07378 725132	Buffet lunch	07-Aug-15	24	£350.00	B
44	Jack Stanway	16 Fir Tree Lane	Shefford	WB12 7GT	07378 198071	Afternoon Tea	01-Sep-16	60	£650.00	P

1	*(e)*	*Leanne will use the file to contact customers to inform them about special offers and new services.*

- *Sort the file to show the most recent orders first.*
- *Print the data showing only the ID, Customer, Street, Town, Postcode and Order Date fields.*

Leanne will begin by contacting the businesses that have placed the largest orders. Create a report that:

- *shows search results for customers who placed orders for more than £900*
- *has a suitable heading*
- *is printed on one page showing only the ID, Customer, Guests and Order Total fields.*

[6 marks]

AO1   Order Date field shows latest dates first (1)
Top five records are 44, 43, 41, 42, 35
AO1   Printouts show only the required fields (1)
Sorted printout shows - ID, Customer, Street, Town, Postcode and Order Date
Query printout shows - ID, Customer, Guests and Order Total fields
AO2   Printout shows customers with order total >£900 (1)
AO2   Report showing records for customers with order total >£900 - clearly legible as a single A4 page (1)
AO3   Printout has an appropriate heading - includes "customers" **or** "orders" (1)
AO3   Printout has an appropriate heading - includes "greater than £900" or similar (1)

Orders over £900

ID	Customer	Guests	Order Total
3	Priesty Walker Cars	200	£2,060.00
6	Wardbridge Advertiser	160	£1,550.00
11	Mead Technology	60	£950.00
26	Shires Tennis Club	100	£950.00
27	Linden Furnishers	120	£1,500.00
35	Hanley Pottery	100	£920.00
40	APR Manufacturing	120	£1,000.00

1	(h)	*Amend the details on the flyer to create a new flyer that is aimed at the new personal customers and can be used to promote the new private function service. You should:*

- *amend the title*
- *amend the information so that it is targeted at personal customers*
- *add information about the services that will be offered to personal customers*
- *add a voucher to show the discount for new customers*
- *use display and formatting techniques to communicate the information effectively.*

[9 marks]

Content:
AO1 Flyer title has been changed – no reference to business
AO2 Information about the services available to personal customers is added
AO2 Discount voucher is included
AO2 Information is relevant to personal customers – information relating to business has been removed
In addition, separately award marks for evaluation using the grid below.

Note: AO3 also assesses students' quality of written communication. When deciding on the AO3 level to be awarded, consider the degree to which the student orders and communicates their ideas.

Level	Descriptor	Marks	Assessment Objective
2	Demonstrates judgement for the content, formatting and structure of the flyer. Ideas are communicated with some structure and use of technical terms. There are occasional errors in accepted convention.	5–3	AO3 and Quality of Written Communication
1	Demonstrates limited judgement for the content, formatting and structure of the flyer. Ideas are communicated in a simplistic way with limited use of technical terms. Errors in accepted conventions are noticeable.	2–1	
0	No valid response.	0	

Indicators of levels of response could include:

Level 1	Level 2
• Irregular arrangement of text boxes remains • Information is all centred • Inconsistent formatting • Inappropriate choice of formatting – styles, number of styles	• Flyer is organised • Discount voucher attracts interest • Focus is on new service • Private events and functions • Information aimed at business target audience is changed to focus on private functions • Effective display/formatting judgements evident in changes to the original • Range of techniques • Flair

| **2** | **(b)** | *Amend the page so that:* |
| | | |

- *it shows a link to a page containing information about how to contact CH&T*
- *it includes a slogan that could represent CH&T – in the area marked AA*
- *the formatting of the heading row is more effective.*

[4 marks]

AO1   Link to contact page added to navigation pane (1)
AO1   Slogan in cell AA– limited length (<12 words) (1)
AO2   Effective slogan – may refer to CH&T – may refer to something from: catering, locally sourced produce, service, occasion(s) (1)
AO2   Heading format improved – text contrast improved, font more appropriate, font size, logo size (1)

| **2** | **(d)** | *The main focus of the page will be the new self-selection menu. A smaller area will contain a feature recipe. Using information from the file RECIPE, add the recipe to the web page. You should* |
| | | |

- *divide the area marked BB into two separate sections*
- *add the recipe to one of the newly created sections*
- *format the recipe so that the information is clear.*

[6 marks]

AO1   Recipe is included on the page (1)
AO1   Section marked BB has been divided – vertically or horizontally (1)
AO2   Formatting technique**s** applied to the recipe (1)
AO2   Formatting improves communication – body text size increased, heading size reduced etc (1)
AO3   Recipe is subsidiary feature on page – **one** technique used (1)
        These may include: size of space, positioning (below or to the right of the menu information), size of text, weight of text
AO3   **>1** technique used to display the recipe as a subsidiary item on the page (1)

2 (e)	*The other section you have created will contain information about the self-selection menu. Using information from **Item B**, create this section of the page. It should:* • *explain how customers will decide on their menu* • *include some examples of the items that could be available* • *explain how the total price to be paid by customers will be calculated.* ***[9 marks]***

Content:

AO1   Web page contains information about the self-selection menu (1)

AO2   Includes how customers will decide on menu (1)
Select from items on list of available options etc

AO2   Includes at least **2** examples of menu items – either from the list in Item B, or student's own suggestions (1)

AO2   Includes information about how the total cost will be calculated (1)

Total price per person is calculated and then multiplied by the number of guests

In addition, separately award marks for evaluation using the grid below.

Note: AO3 also assesses students' quality of written communication. When deciding on the AO3 level to be awarded, consider the degree to which the student orders and communicates their ideas.

Level	Descriptor	Marks	Assessment Objective
2	Demonstrates judgement for the content, formatting and structure of the web page. Ideas are communicated with some structure and use of technical terms. There are occasional errors in accepted convention.	5–3	AO3 and Quality of Written Communication
1	Demonstrates limited judgement for the content, formatting and structure of the web page. Ideas are communicated in a simplistic way with limited use of technical terms. Errors in accepted conventions are noticeable.	2–1	
0	No valid response.	0	

Indicators of levels of response could include:

Level 1	Level 2
• Inconsistent formatting • Inappropriate choice of formatting – styles, number of styles • Text relating to the different bullets is muddled together.	• Web page is organised • Self-selection menu is the main focus of the page • Innovative nature of the new menu is celebrated. • Individualised approach is emphasised. • Sections are clearly separate –spacing, shading, text formatting or borders • Coherent styling • Information is separated into logical sections such as selecting menu items and pricing the menu • It is clear how the new menu works • Pricing mechanism is clear • Range of techniques • Flair

3 (b) *Prepare the spreadsheet for analysis and printing. Amend the spreadsheet by:*

- *adding the column heading in cell H2 - Food Satisfaction*
- *using more than one technique to format the data so that it fits on **one** page in portrait view.*

[4 marks]

AO1   Accurate heading (including initial capitals) added in the correct cell (1) Accept if H2 and H3 have been merged.

AO1   At least **one** formatting technique is used (1)
Could include character (font, character spacing, font size), alignment (text wrap, text direction), merge cells, sheet (column width), page layout (scale to fit to page, margins)

AO2   At least **two** formatting techniques (as above) are used appropriately (1)

AO2   Single A4 portrait printout, with all text clear (1)

Customer Satisfaction

Form Number	Booking Experience	Administration	Satisfaction with Food			Service	Food Satisfaction
			Range	Freshness	Taste		
1	4	4	4	4	5	5	
2	5	4	4	5	5	4	

3 (d) *Use formulae to analyse the data.*

- *In cell B44, enter a formula to give the minimum value for the Booking experience column.*
- *Replicate the formula to produce the minimum values for columns C, D, E, F and G*
- *In cell H4 use a formula to produce an overall rating for customers' satisfaction with the food provided.*
- *Replicate the formula in cell H4 to cells H5:43 to show the food rating for the other forms.*
- *Use conditional formatting to highlight any results that should concern Leanne. Include at least **two** different questions, using a different format for each.*

[6 marks]

AO1   B44 has correct formula to show minimum value (1) eg =MIN(B4:B43)

AO1   Formulae/functions are replicated correctly – in column H and in row 44 (1)

AO2   Formula/function in H4 is accurate (1) = AVERAGE(D4:F4) or SUM(D4:F4)

AO2   Evidence of conditional formatting (1)
Examiner needs to be able to see what rule/condition has been formatted by the consistent application of that formatting.

AO3   Appropriate rule has been used to apply conditional formatting to give a useful outcome – eg food satisfaction, service, range of food with low ratings (1)

AO3   Additional conditional formatting **either** - applied to a second category **or** a second rule
applied (1)

Some possibilities:

	A	B	C	D	E	F	G	H	I
1	Customer Satisfaction								
2				Satisfaction with Food					
3	Form Number	Booking Experience	Administration	Range of Food	Freshness	Taste	Service	Food Satisfaction	Food Satisfaction
4	1	4	4	4	4	5	5	4.33	13
5	2	5	4	4	5	5	4	4.67	14
6	3	4	4	3	3	5	3	3.67	11
7	4	5	5	5	5	5	3	5.00	15
8	5	4	3	3	4	5	3	4.00	12
9	6	4	4	3	3	5	5	3.67	11
10	7	4	4	3	4	4	4	3.67	11
11	8	4	4	3	5	4	3	4.00	12
12	9	3	2	4	4	5	4	4.33	13
13	10	4	3	3	4	5	5	4.00	12
14	11	4	3	2	4	4	3	3.33	10
15	12	4	3	4	5	4	2	4.33	13
16	13	4	4	4	4	5	3	4.33	13
17	14	4	3	4	4	5	5	4.33	13
18	15	4	2	4	4	4	5	4.00	12
19	16	4	4	4	4	4	5	4.00	12
20	17	4	4	4	5	3	4	4.00	12
21	18	4	3	3	5	5	4	4.33	13
22	19	4	4	4	4	4	3	4.00	12
23	20	3	3	5	5	5	3	5.00	15
24	21	5	3	3	3	4	5	3.33	10
25	22	5	4	3	4	4	3	3.67	11
26	23	3	3	3	3	5	5	3.67	11
27	24	4	4	2	4	5	3	3.67	11
28	25	5	3	4	4	5	3	4.33	13
29	26	5	3	3	3	5	5	3.67	11
30	27	4	3	3	5	5	4	4.33	13
31	28	4	4	4	4	4	2	4.00	12
32	29	5	4	3	4	4	4	3.67	11
33	30	5	4	3	4	4	4	3.67	11
34	31	5	3	4	4	4	3	4.00	12
35	32	4	3	3	3	5	5	3.67	11
36	33	4	4	4	4	5	4	4.33	13
37	34	4	4	3	4	5	4	4.00	12
38	35	4	2	4	4	4	4	4.00	12
39	36	3	5	5	4	5	5	4.67	14
40	37	4	3	4	5	4	5	4.33	13
41	38	4	4	4	4	4	4	4.00	12
42	39	5	4	4	5	5	3	4.67	14
43	40	4	5	5	3	4	4	4.00	12
44	Minimum	3	2	2	3	3	2		

3 (g)   *Using the information from the spreadsheet **RESULTS**, write a short report to:*

- *identify **one** piece of useful information from the spreadsheet*
- *explain how this information could be used*
- *recommend further information that could be included in the spreadsheet and explain why it would be useful.*

[9 marks]

Content:
AO1   Identifies relevant data from the spreadsheet – one category of information
AO2   Explains what one piece of data means – a column (provided or calculated), result of minimum function
AO2   Identifies **one** additional piece of data that could be included – time-keeping, price, appearance of food, contact, quantity of food, additional forms
AO2   Explains why that piece of data would be useful

In addition, separately award marks for evaluation using the grid below.

Note: AO3 also assesses students' quality of written communication. When deciding on the AO3 level to be awarded, consider the degree to which the student orders and communicates their ideas.

Level	Descriptor	Marks	Assessment Objective
2	Demonstrates judgement by analysing the data and explains possible courses of action and by supporting the recommendation for additional data by explaining how its analysis could be used to improve the business. Ideas are communicated with some structure and use of technical terms. There are occasional errors in accepted convention.	5–3	AO3 and Quality of Written Communication
1	Demonstrates limited judgement by describing the data in the spreadsheet and the additional data that is recommended. Ideas are communicated in a simplistic way with limited use of technical terms. Errors in accepted conventions are noticeable.	2–1	
0	No valid response.	0	

Indicators of levels of response could include:

Level 1	Level 2
- Suggests forms from more customers - Describes the information that could be included - Improve an appropriate aspect eg service, but without further supporting explanation of how it might be improved - Suggests additional content that is not related to the purpose of the sheet - Vague or repetitive interpretation of data	- Explains what at least one category of information in the spreadsheet means - Explains what the additional fields would show - Explains why the additional fields would be useful - Explains how Leanne could learn from additional fields - Explains actions that Leanne could take as a result - Demonstrates understanding of the use of qualitative data to make and/or support judgements - Suggests appropriate ways to improve eg improve customer service by further training; improve the rating for range of foods by extending the range of vegetarian foods on offer